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BALTIMORE, MARCH 15, 1895.

THE progress that is being made by the Atlanta Exposition gives promise of its being a far more comprehensive affair than is generally understood. It is the first great exposition ever held in the South, for the New Orleans Exposition is hardly to be compared with this in magnitude or in the effect which it will have upon Southern development. The most important matter now is to get ready in time for the opening day. This Atlanta ought to do, and thus break all previous exposition records.

THE rapidly-increasing interest of the great Northern dailies in Southern progress is shown by the announcement that the New York Sunday Herald is to be sent South by a special train via Cape Charles and Portsmouth, Va., to points in Virginia and the Carolinas. Now let the Herald take the lead of other Northern dailies in giving full attention to the rapidly-developing business interests of the South.

Cotton Mills.

Many towns in Georgia and the South have come to the conclusion that if they get any cotton mills they must build 'em themselves—Oglethorpe Echo.

That is about the size of it. We may induce Northern people to invest their money in Southern cotton mills because "it is a sure thing," but we have no idea now that many of the big mills already established in the North or East will ever pull up stakes and pitch their tents in the South—Augusta (Ga.) Herald.

How about the Dwight Company's new \$500,000 mill now building at Gadsden, and the Massachusetts Mill Company's \$600,000 mill at Rome? Some seven or eight others will before long follow suit, and contracts are now pending with two New England companies, with a strong probability of the papers being signed very shortly; in fact, the announcement may come any day. Of course the old mills will not be moved South, but the old companies will build new mills South. To this will be added heavy investments by New England capitalists in new Southern mills. Advertise in the MANUFACTURERS' RECORD's special Cotton Mill Supplement if you want to reach all these people.

New England Studying the South.

A committee of nine members of the Massachusetts legislature is now visiting the South in order to study the conditions surrounding cotton manufacturing in this section. THE MANUFACTURERS' RECORD is surprised that two such papers as the Charlotte Observer and the Augusta Chronicle should look with disfavor upon this visit and criticize the motive prompting it. The Observer says:

As a party of gentlemen coming South on a visit, the members of the Massachusetts committee ought to be welcomed and cordially entertained; as a delegation looking for a basis on which to start an agitation, we want to give them the least possible encouragement consistent with civility.

And to this the Chronicle adds:

A committee of manufacturers coming here to compare methods—coming to make, as it were, a fair exchange of ideas, methods, results, etc.—would be in an entirely different position from one that has nothing to give, but only wants information that may be turned to no other use than to extend a discussion in New England about a matter that is none of our affair.

This is a narrow policy and a short-sighted view to take of this trip. Of course, the Massachusetts committee's aim is to find out if the South really has the advantages for cotton manufacturing claimed for it, and, if so, to present a statement of the case to the legislature. Should this report be so favorable to the South as to result in less restrictive labor laws, this will simply be the best possible official advertisement that the South could ask. The very fact that Southern competition is already so keenly felt as to necessitate an investigation of this kind on the part of the Massachusetts legislature will in itself attract wide attention to the South and do much good. Should the committee return home and say that the South's advantages are not such as to demand any new legislation in favor of Massachusetts manufacturers, then they would simply go directly against the practical business men of their own State, and drive them South in self-defense. It is merely another case of "heads I win; tails you lose." The South is the gainer in either case. But, outside of this view of it, it is scant courtesy for the Observer and the Chronicle to suggest that the committee should not have every opportunity afforded for a careful study of the South. Are they afraid of investigation? Do they believe that such a committee will find the advantages less than the South has claimed for itself? THE MANUFACTURERS' RECORD heartily welcomes such a visit, and would be glad to see a committee from the legislature of every State studying the South.

WE are now told that the price of fuel is an item of immense import to our manufacturers, and that the difference between the cost of this commodity to some of the Southern mills as compared with those located in Massachusetts is

equivalent to a 6 per cent. annual dividend on an investment of \$1,000,000.—Boston Herald.

THE MANUFACTURERS' RECORD has been telling you this for some years. Your manufacturers are at last convinced that it is true. They are acting accordingly.

A Wise Move Towards Diversified Agriculture.

One of the most potent influences in causing the South for so many years after the war to turn its attention almost wholly to the production of cotton and to buy its corn and provisions in the West was the necessity of farming on credit. After the war Southern farmers were without money, and it became necessary to mortgage their crops in advance, even before they were planted, in order to get to work. Cotton factors and commission merchants were willing to lend money against cotton to be raised, but would not advance anything on corn or general agricultural products. This compelled farmers to give all their attention to cotton in order to raise as large a crop as possible, because out of its proceeds they had to purchase their provisions and corn. This acted in the interest of the factors and commission merchants, because it gave them the opportunity to sell Western corn and bacon to Southern farmers. This condition of affairs has been one of the strongest influences against the diversification of Southern agricultural interests. Once introduced, it became almost impossible to break away from this system.

One of the most encouraging movements yet made in changing this system has been started by the merchants of Wilkinson county, Miss. Believing that farmers are giving too much attention to cotton to the disadvantage of the country, these merchants have decided not only to use their influence to induce the farmers to cultivate corn and other foodstuffs, but have announced that they will sell no more corn, cornmeal, oats or similar products on credit after January 1 next. Under these circumstances the farmers will be obliged to raise their own food supplies or to buy for cash. If the merchants of the entire South would take such action as this it would immediately solve the whole question of diversified agriculture. Instead of standing, as the system represented by them of advancing money against cotton only, as a barrier to the diversification of agriculture, the merchants would take the lead in forcing this diversity upon the farmers. For a short time they might lose some trade by their failure to find a market for Western corn and bacon, but the prosperity of the South would be so greatly enhanced that all of its people would be able to buy more largely of general merchandise, and the merchants would thrive accordingly.

THE MANUFACTURERS' RECORD commends the movement in Mississippi, and would be glad to see the merchants of every county in the South take similar action. It would mean the keeping at home of \$100,000,000 now annually sent West for bacon and corn.

Will the South Export Iron?

The possibility of the South becoming an exporter of pig iron, and not only putting it into neutral foreign markets, but possibly into England itself, is discussed in a letter by Mr. J. Bowron, secretary of the Tennessee Coal, Iron & Railroad Co., published in this week's issue. Mr. Bowron claims that gray forge or No. 3 foundry iron can be put on board the cars at Birmingham at about \$2.50 per ton below the price of similar grades in Middlesborough, England. This is an interesting phase of the iron question that will doubtless assume considerable importance in international trade relations within the next few years.

It was not many years ago when every statement that Alabama would make iron at \$8 a ton was strongly ridiculed. The scientific authorities united in denouncing such claim as the visionary emanations of a disordered brain or the wild talk of "boomers." Alabama is now making iron at \$6.50 a ton, and probably even lower at some furnaces.

A Chance for Inventors.

Referring to the suggestion lately made by Secretary of Agriculture Morton as to the need of a new implement to take the place of the plow, the Worcester (Mass.) Spy points to this as "a chance for inventive Yankees," but the MANUFACTURERS' RECORD would suggest that some Southern inventor may as well take the lead. At any rate, the implement is needed. In his letter to the Nebraska State University in regard to it Secretary Morton said:

In my judgment, the coming implement should spade the land and turn it over as a man who pushes the spade with his foot into the ground, and, drawing the spade out, turns the soil upside down by the twist of his wrists. Possibly a rotary spader could be invented. Possibly an implement consisting of a large number of revolving knives could be made, so that in passing over the surface of the field it should chop up the soil and subsoil for two feet in such a manner as to render the percolation of the rainfall down to the depth at which the ground has been stirred very easy and perfect.

The Spy in commenting on this suggestion says:

His reason for some substitute for the plow is that in stoneless soils that implement impacts every furrow it passes over, and renders it as impervious to rainfall as possible. The draft of a plow is downward to such an extent that the full force of the team's strength is exhausted in pressing the bottom of the furrow into a polished trough for the conduction of rain down the side hills. We must have some method of tillage which shall stir up the soil and subsoil to the depth of eighteen inches and more. If it were possible to loosen the soil and subsoil down for three feet all over the State of Nebraska, we could then, with an annual rainfall of twenty inches, make abundant and profitable crops. Until deep

plowing—thorough subsoil tillage—becomes universal in that Commonwealth, there will be, year in and year out, no certainty of remunerative crops.

Whoever has traveled much in the older agricultural districts of the South has seen this illustrated. The bed clay rolling lands of the Carolinas and of Northern Georgia, that were worked before and immediately after the war, all show the effects of this erosion. If a practical implement of the kind Secretary Morton desires is devised, a factory for its manufacture will be required equal in extent and in the number of workmen employed to the greatest of the many great agricultural-implement works of the West.

Don't Be Provincial.

The Iron Age in its last issue calls attention to the provincialism of many of the business men, as well as many newspapers, of our country. It points out that it is the duty of every man to keep advised as to the general progress of our whole country, and that it is especially important for manufacturers to know of the resources and advantages of different sections of the country in order that they may more correctly understand the possible sources of competition. Commenting on this it says:

We believe that it is a wise plan, followed by very few in this country, to make the whole round at least once in five years. Our Southern friends will return in a much humbler frame of mind to their own work after having visited the districts of Lake Superior or the Connellsville coke region. Many a Northern ironmaster would have his eyes opened in a tour through Virginia, Kentucky, Tennessee and Alabama. Not one of the stay-at-homes could help returning to his own fireside without a proud sense of the greatness of his own country and a fixed conviction that its manifest destiny is to overshadow all other countries with its metal industries. He would be convinced that while he might be entitled to some credit for achieving that result, there are a good many others possessing the power, the ability and the enterprise to contribute an important share to the work.

Cottonseed as Food.

The statement of Dr. V. P. Clayton, of Columbia, S. C., in the MANUFACTURERS' RECORD on the value of cottonseed as an article of food has attracted the attention of the Columbia State, which heartily endorses the physician's statement as follows:

The composite bread of cottonseed meal and corn flour which Dr. Clayton describes is decidedly palatable, as we can certify from a personal test of it. The economic value of our fellow-citizen's discovery seems to us very considerable. The fact that in this waste product of a few years ago we have millions of tons of wholesome food for man as well as beast is pregnant with importance. We may expect before long the application of science to the better fitting of this meal for the table without admixture of wheat or corn flour.

The fact is that the South is only beginning to realize the value of many of its products as articles of food. The utilization of the peanut and the cottonseed for many new purposes will eventually add greatly to their value to the South.

Can the South Do It?

The question of the possibility of making pig iron at \$5 a ton is again discussed in this issue of the MANUFACTURERS' RECORD. A correspondent criticises the claims of Mr. Davis that iron can be made in Campbell county, Tenn., for \$5. In doing so he also criticises the reports of Hon. John R. Procter and of Mr. John Fulton, mining engineer. These two gentlemen are doubtless able to take care of themselves in any discussion that touches on their scientific attainments, and so the MANUFACTURERS' RECORD will leave "Southern Iron" to their tender mercies if they feel disposed to take up the cudgels in their own defense. This question is now receiving very general

attention throughout the North and South, and the daily papers, as well as the industrial journals, are discussing it.

Can the South produce pig iron at \$5 a ton? If so the MANUFACTURERS' RECORD wants to know it. If it cannot do it, then it also wants to know that side of the situation. "Southern Iron," who has had practical experience in making iron in the South, says that it cannot be done. Mr. Davis insists that it can.

Live Business Bodies.

Some of the Southern cities fail to realize the benefit from such meetings as the recent South and West Trade Congress. Delegates to these gatherings, if they make themselves seen and heard, advertise their city in a forcible manner. A community is simply what the people make it, and if its commercial bodies are not represented at gatherings of a sectional or national character, it indicates a lack of enterprise and activity which reflects to the discredit of the city. At the last Trade Congress at New Orleans, Kansas City had twenty-six representatives; Memphis, it is stated, had one. As this Trade Congress is shortly to convene in Mobile, Southern cities should be well represented.

The development of the city of Atlanta is also an indication of what vigorous organizations will do. Every convention which will be of benefit to the city—and what one will not—is secured by its enterprising delegates. They know that every newcomer means so much money spent in the city; means, perhaps, an investment in one of its opportunities of outside capital, and means a testimonial of the place to the outside world if the visitor is pleased, and Atlanta sees to it that he is pleased before he leaves. The MANUFACTURERS' RECORD trusts that every organization formed in the interest of the South will bear it in mind.

Possibility of Exporting Alabama Iron

TENNESSEE COAL, IRON & RAILROAD CO. }
BIRMINGHAM, ALA., March 8. }
Editor Manufacturers' Record:

In reply to your favor of the 5th inst., the information which you seek in regard to the possibility of exporting iron is really that which we are ourselves endeavoring to obtain, and we are not in a position to speak very definitely. The subject of exportation of iron has occupied our attention for some time, and owing to my own familiarity in past years with the English iron trade, the correspondence has rather naturally fallen to my share. I have become perfectly satisfied that starting as we do, with the price about \$2.50 per ton for gray forge or No. 3 foundry below the f. o. b. Middlesbro price for similar grades, we certainly ought to be able to compete in neutral markets. It will, however, require time and patience to attain this end, for the reason that the vast bulk of ocean tonnage is in the hands of English owners, who will make freight rates to facilitate English exports and obstruct ours. Unfortunately, American producers are handicapped by the fact that the tonnage of our exports largely exceeds the tonnage of our imports. We require double the steamer-room for shipment across of our grain, cotton, lumber, oil and provisions that is needed for the conveyance back again of tea, silks, cutlery, etc., which we import. This fact enables the English ship-owner to make the American charterer pay the cost of the round trip, and he is willing to accept a mere ballasting rate from England outwards to this country. I am afraid, from this cause, that it will be impossible

for some time to sell any iron in England unless it can be shipped to Manchester in conjunction with cotton.

The markets of the Mediterranean and of the Baltic are not, however, subject to the same remarks, except to a limited extent, and I am quite hopeful that the rates which are now under the consideration of the Southern railways to Mobile, Pensacola and Savannah for foreign shipment will enable us actually to commence business with Italian, Spanish and Russian ports. In the absence, however, of any actual transactions having been concluded, I could not give you any figures that would be in the nature of information, as they would be speculative and of no advantage for your purpose.

J. BOWRON,
Secretary and Treasurer.

The Texas Granites.

[Special Cor. MANUFACTURERS' RECORD.]
AUSTIN, TEXAS, March 7.

The Texas granites were first brought prominently into notice in 1882 by their adoption as the material for the new State Capitol building at Austin. Previous to that time there had been very little, if any, quarrying done, but the success attending the opening of the Granite Mountain quarries has induced others to commence operations at different localities, and now it is possible to obtain not only the red or Capitol granite, as it is called, but several colors and shades of red-brown, red-gray, blue and gray granites as well, several of which are not only very pleasing in color, but of excellent quality.

In the first and second annual reports of the Texas Survey we have described the various granites which occur in the central mineral region (Burnet, Llano, Gillespie and adjoining counties), and have shown that their outcrops have an areal extent of over 150 square miles, but at present only those deposits are accessible which are along the line of the Austin & Northwestern Railroad. The principal quarrying is done at Granite Mountain, about eight miles south of Burnet, in Burnet county. The availability and beauty of this granite is well exemplified in the Capitol at Austin, which has already been mentioned. It has been used in the construction of several courthouses and other public and private buildings in the State, and has also been shipped to New York city and used in buildings there. Its largest use, however, has been in the construction of the jetties at Galveston, no less than 5000 carloads, or 150,000 tons, having been shipped for that purpose during the year 1894. It is also to be used in similar work at Sabine Pass and Calcasieu. Portions of the area, which covers nearly a square mile, furnish excellent material for monumental work, and shipments have been made for this purpose to various points in Texas and to New Orleans and New York. The Texas & New York Granite Co., which owns the property, has steam grinding and polishing machinery at work, and, at the present time, there are about 120 men employed in quarrying and working the granite.

Another red-granite quarry is situated near Kingsland. This quarry furnished the granite for the new courthouse at Fort Worth, which is now nearing completion. A good gray granite has been quarried for some years about six miles west of Burnet, and used both for structural and monumental work. Another quarry which has furnished some beautiful granite for a number of our Texas buildings and for monumental work is located near Fredericksburg, in Gillespie county. Its development has been greatly retarded, however, by the fact that it has no railroad near it. Other quarries have been opened at different localities for granites of special color or to meet local demands, such as those near the town of Llano. Among the latest of these is that three miles west of the town and on the bank of the Llano river, where Mr.

Finlay has opened a quarry of light gray granite. It is from this quarry that the contractors for the new custom-house at Kansas City, Mo., will get the granite for that building. From 300 to 500 carloads will be required for the present contract, and the Austin & Northwestern Railroad will probably have to be extended to the quarries to afford the proper transportation facilities. There is a good water-power on the property, which will be used for grinding and polishing.

The amount and variety of granites in this central mineral region certainly constitute a basis for a large and profitable industry so soon as their excellent qualities are known and favorable rates obtain for their transportation to the larger building centres. E. T. DUMBLE, State Geologist.

OUR SOUTH AMERICAN LETTER.

How to Increase Our South American Trade.

[Special Corres. MANUFACTURERS' RECORD.]
BUENOS AYRES, ARGENTINA Jan. 30.

I wish I could impress upon the manufacturers and merchants of the United States what an opening there is in these South American countries for large and profitable business.

Our goods are wanted, and the people prefer to trade with us. But we must offer the same conditions that the European countries give that do the larger part of the trade.

Take this city as a sample place. One finds England, France, Germany, Belgium and Italy doing large business here. But they have banks, good lines of steamers and business-houses with goods to sell direct, and they give credits and make their goods as these people want them made.

We have a good American newspaper here, but no bank, lines of small steamers only, no business-houses with goods, and our manufacturers make no attempt to satisfy these people in their styles of goods and allow no credits. Banking is very profitable. The English banks make 6 per cent. a month on their money at the very least without risk, and lay up large reserves after paying as high as 17 per cent. dividends yearly.

Take the British Bank of South America, and it advertises in the papers \$2 500,000 paid capital and \$1,600,000 reserve fund accumulated. It pays 2 per cent. on seven days' deposits, 3 per cent. on thirty days, 4½ per cent. on ninety days and more on longer time.

The London and River Plate Bank has \$7,500,000 capital and \$4,500,000 of reserve accumulated and pays the same interest. In 1892 the United States did \$132,000,000 of trade with Brazil, buying \$118,000,000, all paid through English banks. The profits of banking here are enormous, and a bank would largely help to increase our trade with these countries, and yet our sharp, enterprising Yankees do not use the opportunity.

We have one or two lines of steamers coming to this city, but they are small and do not make fast time and compete with the fine and fast European steamers. They are improving, however, and can be made better with the creation of business.

We have no American houses with goods. American goods are bought by sample, and it takes a long time to send orders and get returns, and orders have to go through European houses here that of course discriminate against us.

The Senate has at least reached the matter of the appropriation by the House of \$15,000 in gold for an exhibit at the Atlanta Exposition and unanimously increased the amount to \$25,000.

This places the great republic of Argentina as a powerful factor in this exposition. Dr. Zeballos, the Argentine minister at Washington, is the United States commissioner for this country.

An honorary commission has been appointed here, composed of distinguished and influential gentlemen:

Eduardo de Olivera, president Paris Commission.

Julio de Viclonca, president Chicago Commission.

Jose M. Acosta, president Rural Society.

Martinez Campo, president Industrial Union.

Carlos F. Gallardo, commissioner-general to Chicago.

Lix Klett, commissioner to Chicago.

Enrique M. Nelson, agricultural commissioner at Chicago, will be the local commissioner to get up the exhibit here, under the direction of the honorary commission. I go from here to Chili.

I. W. AVERY.

THE LAWS OF TRADE

Driving Factories to the Raw Material

At a meeting last Friday of the committee on mercantile affairs of the Massachusetts legislature the question of Southern competition with New England cotton-manufacturing interests was the subject of discussion. Mr. William C. Lovering, president of the Arkwright Club, presented the manufacturer's side of the case. Mr. Lovering said:

"This hearing might very properly have taken a wider scope, and have included other than textile industries, for it is a grave fact that not alone the cotton textiles are seeking other fields, but many industries have either deserted the State or are prospecting in other sections of our country.

"One by one our industries have gone from us. What has become of our heavy iron works? Go to South Boston, where only a few years ago the largest castings in the world were turned out. Go to Bridgewater, where some of the heaviest forgings were struck. What do you find? Where are the great rolling mills? Where are the great plate and nail works? Where are the locomotive works that were building engines by the hundred in Massachusetts a score of years ago? All gone to the mouths of the mines and the regions of coal.

"We once had large furniture factories in our State. Now we bring our furniture from Michigan. The shoe business, one of our largest industries, is about taking to itself wings. It is said that a dozen years or less is likely to see it almost entirely alienated from the State.

"True it is that natural causes have, in most instances, worked this change. All of those industries have, in obedience to a natural law, sought the base of supplies.

"Today the cotton textile manufacturers occupy a prominent place in our Commonwealth. They have, perhaps, more than any other industry, taken the place of those that have gone out.

"We are continually reminded that Massachusetts is a model State; that her enterprise, pluck and capital will sustain her and keep her in the front rank. But does it occur to us that her enterprise, pluck and capital are movable, and what with luring attractions abroad and persistent attacks at home, are continually seeking new fields beyond her borders?

"Massachusetts may be a model State, but she is not so blessed with natural advantages that she can compete in agriculture or mining or in any of the natural products with other more fertile and favored States.

"Manufactures are the main dependence of our Commonwealth. Behold her deserted farms!

"Go to Salem and walk through the old town by her once busy wharves and warehouses. It is a continual Sunday.

"Turn where you will, it is the manufacturing in our State, and almost that alone, that sends the thrill of life through her veins. Boston owes her greatness to manufacturing.

"What is to take the place of our textile industries if they leave us? Have we reached the fullness of our greatness in this department? Has the tide begun to ebb? That Massachusetts has prospered through all the vicissitudes is encouraging, but has she prospered as she ought to have done? Does she occupy the place she ought to occupy? And if not, then why not?

"It is to be presumed that when this order was drawn it was in the minds of those having it in hand not only to look for the causes of the exodus of our cotton-textile industries, but if possible apply remedial legislation.

"We cannot expect to bring back these departed industries. We can foster those that remain, or we can drive them forth with the others by all sorts of petty annoyances and embarrassments.

"It is not a sufficient answer to all this to say that new industries will come in to take the place of those going out. The amount of capital invested in cotton-manufacturing in Massachusetts is too great to be driven out or put to hazard by legislative handicapping without striking a fatal blow at the public welfare.

"It is time to stop and reflect, and see if there is not something that we have done or omitted to do that is directing the attention of capital to other States. Everything should be done to promote business in our Commonwealth, for without business there can be no prosperity."

Following Mr. Lovering, Hon. T. Jefferson Coolidge, one of the leading capitalists and manufacturers of New England, presented some comparisons of existing conditions in the North and the South for the fostering of manufactures. Mr. Coolidge said: "The price of coal, for instance, in the South is from eighty cents to \$1.50 a ton, while in Lowell it is from \$3.50 to \$4.50." In the item of coal alone, he stated that the mill which he represents "would be able to save \$60,000 a year if located in the South." "Our taxes," he added, "are enormous. In fact, this country is the most heavily taxed of any in the world. For example, a mill which in Massachusetts would be taxed \$90,000, would be taxed but \$30,000 in England. Then again, the cost of living is 30 per cent. lower in the South than here. The legislatures of the South have fostered the growth of textile industries and have exempted them from the great burden of taxation."

The Cotton Manufacturers' Association of Fall River presented, through Mr. J. A. Baker of that city, a statement showing the importance of Fall River as a cotton-manufacturing point and the necessity of favorable legislation. "The removal of Massachusetts capital," said this petition, "to other States, now going on, is a startling object-lesson, and the legislature has acted wisely in requesting this committee to ascertain, if possible, what influence restrictive labor laws have exerted to bring about this result. Any legislation that tends to handicap and burden this great industry with restrictions not placed upon our competitors in other States, no matter in how small a degree, will, we believe, not only check our growth, but by lessened production, consequent increased cost, diminish the value of our product and the earnings of our operatives. In place of a steady increase in spindles in Massachusetts in proportion to the increased demand of the country for cotton goods, we see at the present time that no mills are being built within the limit of this State, but that Massachusetts capital is building mills in other States. The business is growing, but the growth is in States far distant from ours."

One very important point brought out in this statement is the fact that the ownership of Fall River cotton mills is not confined to a few wealthy people, but that "the

stock of these mills is mainly held by people of moderate means, the capital of Fall River mills being divided up among 8000 stockholders, many of whom are women."

This last statement is of special interest to the South, as it shows that Fall River, which has 2,500,000 spindles, or nearly as many as the entire South, has built up this enormous industry not on the capital of a few great concerns, but on the aggregate capital of 8000 stockholders. The building of cotton mills on the co-operative or building-association plan, which has been undertaken in various parts of the South, will bring to this section some of the advantages of the aggregation of small earnings which is so admirably illustrated in the enormous textile business of Fall River, which is based on the same principle of the combination of moderate investments by thousands of people.

The South is being very liberally and freely advertised in New England. All New England is being told of the superior advantages of this section for cotton-mill business, and with the right spirit of energy and co-operation, Southern towns interested in securing cotton mills ought to be able to secure large investments from New England to join with local capital in building new mills.

Sulphuric-Acid Making from Gold Ores.

A correspondent of the MANUFACTURERS' RECORD, in giving a detailed description of the plant now being built at Blacksburg, S. C., by the Carolina Sulphuric Acid Co., says:

"At Blacksburg, S. C., an industry is being started that will be of interest to chemical and fertilizer manufacturers, namely, the production of sulphuric acid from gases produced in the desulphurization of gold sulphurets. So far these gases have been wasted, but the Carolina Sulphuric Acid Co., of Blacksburg, S. C., has decided to turn them into a source of profit. To the casual observer it seems a simple plan to put up leaden chambers and condense the fumes from roasting the gold-bearing ores; but there is an important point to watch, otherwise when completed it will be a failure.

"This point is to determine if the gases on leaving the furnaces are rich enough in sulphur dioxide to be worth saving, and not simply to judge by the volume escaping. If the object is to utilize these waste fumes for making sulphuric acid, great care must be taken in adopting a suitable furnace, for with a furnace that requires a great excess of air, which most do, to desulphurize the ore, the fumes produced would be so diluted as not to justify further treatment. A mechanical furnace has been devised to completely desulphurize the ore and at the same time leave the fumes in good condition for making acid. It is called the caloric reduction furnace, and is an improvement over others. These furnaces are being used at the Carolina Sulphuric Acid Co.'s plant for calcining its gold ores, and the fumes from them are to be used in the manufacture of sulphuric acid. These gases are drawn from the furnaces through a flue in the ordinary manner to the lead chambers, passing on their way through a nitre oven, where they come in contact with nitrate of soda and sulphuric acid, causing a reaction to set in, owing to the heat imparted, nitre gas being liberated, the residue being sodium sulphate, which is drawn off from time to time. These gases intermingle on their way to the chambers, and, meeting moisture in the form of steam in the chambers, the process of sulphuric-acid making begins. The atmosphere in the chambers is in the state of mist, owing to the floating liquid particles present, and with these the gases interact. The chambers must be of sufficient size to enable this interaction to be completed, otherwise

there would be but a small yield of acid. With poor fumes, caused by unsuitable furnaces, a much larger chamber space is necessary for condensation.

"The amount of chamber-space necessary for producing sulphuric acid being great and expensive, much time and money has been spent on devising methods for reducing it. In this case the Hacker and Gilchrist pipe-columns are being used in conjunction with chambers, effecting a reduction of about 50 per cent. of the space which would otherwise have been necessary, being at the same time cheaper and more efficient. These columns do the same work as is done in the chambers, only in a very condensed form, as the gases in passing through become very thoroughly mixed by impinging upon the numerous moist surfaces presented, causing them to interact upon each other, which is very favorable to the production of sulphuric acid, and also scrubbing out the nitrosulphuric acid from the mist, decomposing it with the steam present, and liberating the nitrous gas for work in the next chamber.

"As these gases approach the end of the system the percentage of sulphurous gas should rapidly diminish, leaving only traces for the exit.

"The plant now under erection consists of four chambers, having a total capacity of 99,000 cubic feet, with six pipe-columns of improved design, with coke-tower and automatic damper at exit, combining all latest improvements, with the exception of Glover & Gay towers, which are to be added later. This plant will be able to take ten tons of concentrated ore, and will produce about twenty tons of 50° Beaume acid per day; this can be increased at any time with little inconvenience. The acid produced will be run by gravitation to the Durham Fertilizer Co.'s plant, which is to be erected at once, where it will be utilized for the manufacture of acid phosphate and complete fertilizers. This is to be of modern construction, embodying all labor-saving devices, the location being an excellent one for this purpose. This plant will be capable of producing 15,000 tons of fertilizers per annum."

Meat-Packing in Warm Weather.

The question of curing and packing Southern meat is having a great deal of attention at present and has created a very beneficial discussion. The main argument which seems to be raised against it is that the climate prevents meat-packing for several months annually, while the Chicago and Western packers can work the year around. The MANUFACTURERS' RECORD has already shown that a firm can suspend operations from May to September and realize a fair profit simply from eight months' work out of the year. We refer to the Augusta Packing Co., which, in a recent letter to the MANUFACTURERS' RECORD, stated that it had cleared \$1246 on an investment of \$4000, or nearly 30 per cent. But it is not necessary to suspend operations on account of the climate. The great improvements which have been made in refrigerating and cold-storage plants make it possible to kill and pack meats in the middle of summer if trade necessitates operating during the heated term. Most of the Northern packers require cold-storage plants, which are built on an extensive scale, so that the Southern packers need not feel that the others have any advantage over them on account of climate.

The low price of cotton and other causes are forcing planters to economize by buying food at home and raising more of their own meat. The surplus must be and can be cured in the South, and thus this valuable industry will be stimulated and developed.

THE dam across the Colorado river, for the purpose of supplying Austin, Texas, with water and power, has been completed and the city water system is in operation.

The \$5 Iron Question.

Editor Manufacturers' Record:

I note with interest the reply by Mr. Eugene Davis to my doubts as to his ability to make pig iron at La Follette, Tenn., for \$5. am still unconvinced. Many years' practical experience in the iron business has taught me that \$5 iron is made only on paper.

Regarding Mr. Davis's proposition that anyone questioning the accuracy of his statements is at liberty to go to Campbell county, Tenn., and inspect the property, that is a foregone conclusion. A point against it, however, is that Mr. Davis does not state that he is sufficiently interested to assume traveling and other expenses, including compensation for the time required. It would be quite as proper to assert that gold can be picked up in pound lumps in Patagonia, and anyone who don't believe it can go there and see for themselves. Such a statement is not at all convincing, and is out of place in the discussion.

As I said in a previous communication, I do not think I have seen the particular property owned by the La Follette Company, but I have visited professionally properties north, east and west of it, and as there is a very distinct geological relation between the La Follette and other properties, I do not think the former contains anything so exceptional as to be beyond my understanding.

Mr. Davis says the only point in the discussion is whether the conditions which he described actually exist. This, I admit, is a most essential point, and as he has failed to describe anything except in the most glittering of generalities, it is exactly this which I would be glad to have him make more plain. As he is altogether unfamiliar with the business of iron manufacture, or the practical or economical questions involved in mining and in operating a large iron industrial establishment, I do not place any confidence in the views which he advances for himself after "having been on the ground and made a careful examination." The opinion of the Hon. John R. Procter, former State geologist of Kentucky, is as little worthy of credence. Mr. Procter is not a practical ironmaster or mining engineer, and in the many reports which he has made on various properties he has displayed a most lamentable lack of practical knowledge. Indeed, in a large number of them it is probable that the same stereotyped expression which Mr. Davis quotes occurs: "I know of no place in the United States where iron can be made cheaper." I do not like to seem too captious, but Mr. John Fulton's report on the quality of the coke made from La Follette coal has very little weight among practical iron men.

Really, after reading carefully over Mr. Davis's letter, I find nothing in it—no point, no demonstration of any kind. Allow me to ask a few questions: What class of ore is to be used? How far is it from the furnace? How thick is the ore vein? How far is it above the level of the nearest running water? What is the dip of the vein? Is the ore hard or soft? What is the average analysis of the ore? How much per day is paid to ordinary labor? How far distant from the furnace is the limestone? How thick is the bed? What is the average analysis? How far from the furnace is the coal? What is the average analysis? What is the miner's rate per net ton? What is the roof? How far is the mine above water-level? Is the mine dry or wet? For what price can coal be contracted to be delivered at the coke ovens? For what price can ore be contracted to be delivered at the furnace? and at what price can limestone be contracted to be delivered at the furnace?

If Mr. Davis will favor me by answering these questions I can form a more accurate opinion of the cost of producing pig iron at the proposed furnace.

"SOUTHERN IRON."

Improved Cotton-Baling.

In the MANUFACTURERS' RECORD of March 1 a full description was given of the Bessonette baling system. Since then Mr. Edward Atkinson, in an elaborate interview on cotton, cotton-ginning, compressing and manufacturing, published in the Boston Herald, refers to this system, and also states that already two rivals on practically the same lines as the Bessonette have appeared. Mr. Atkinson, in reply to a question as to what improvements are in prospect in baling, said:

"Mainly in substituting a method of baling which will be less wasteful, free from fires and subject to a lessening charge for freight, either by rail or ocean. A cylindrical bale, made on a calendar press, known as the Bessonette bale, has been developed in Texas. It possesses very great merits, and were it not for the inertia to be overcome, might be very rapidly adopted. Already two rivals on practically the same lines have appeared. The present bale of cotton is made on the plantations in the first instance, under screw or lever presses, by which it is very slightly pressed. In that condition it sheds water, the cotton being filled with air, so that even exposure to rain and wet does not injure it materially. Before shipment it goes to the compress, in which it is subjected to an enormous pressure—probably to a density of fifty or sixty pounds to the cubic foot—which would make it heavier than hardwood, and it is there held by iron bands.

"In this process the air in the cotton is also compressed. When the bale is taken from the compress the air reacts; the bale swells between the bands and assumes a density of about twenty-three to twenty-five pounds to the cubic foot. It is then cut and slashed in taking samples, and rolled in the mud. Singularly, it is readily absorbent of water, grease and oil, and it is abused in every possible way. In this ragged and dilapidated condition it is liable to absorb cottonseed oil, generating spontaneous combustion, which, in my judgment, is the chief cause of the fires on cotton ships, the bales of cotton being very liable to be carried in the same cars or boats in which cottonseed oil may have leaked. It ignites from the least spark, and when once ignited the fire finds air enough in the compressed bale to burrow for weeks. Cotton in such a bale is never safe after it is once exposed to fire.

"The cylindrical bale, however, is made in a different way. The cotton is taken directly from the gin in a lap and is rolled upon an iron pipe, afterward withdrawn. The first layers are put on with very light pressure in order to form a cushion. As the bale increases in size the pressure is increased. The air is squeezed out in the process, to the end that when the bale reaches its full diameter it may be of a density of forty or fifty pounds to the cubic foot. And yet it will never have been exposed to the extreme compression of the customary big compress. There is no reaction. It is covered at the ends with oilcloth to prevent moisture or grease from being absorbed, while it is wound on the outside with narrow cotton drilling previously treated by a new and very cheap process which makes the drilling unignitable and spark-proof. It requires no bands and no ropes, and although in the form of a cylinder, yet when packed into a car or vessel it is so much more dense than the ordinary bale as to require two-thirds the space for the same weight of cotton. If the outer covering be removed the outer layer may be ignited, but the fire goes out; it does not penetrate. There is no air in the bale sufficient to maintain combustion. This bale can only be burned by surrounding it with kindlings. It is like a round log of wood, as difficult to burn as if it were actually wood, which it practically is. It is cellulose tissue, free from albumenoids or resins."

RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department, on page 109.]

NEW NORTH AND SOUTH LINE.

Surveys Made Seem to Indicate a New Route from Florida to the North Through the Shenandoah Valley.

It is believed that plans are now being matured which, if carried out, will result in another trunk line between the North and South.

Several weeks ago the MANUFACTURERS' RECORD referred to the fact that surveys had been made for a few miles of track in the outskirts of Columbia, S. C., from the terminus of the Florida Central & Peninsular's Savannah & Columbia division to the Seaboard Air Line tracks. At present the Florida Central & Peninsular enters Columbia over the Charlotte, Columbia & Augusta division of the Southern system. This survey in itself is not so significant, but the MANUFACTURERS' RECORD has since learned that a route has been laid out by surveyors from the terminus of the Florida Central & Peninsular survey to Winston-Salem, N. C. A route followed by engineers in the interest of another line several years ago is taken from Columbia to Monroe, N. C. The route then passes to Salisbury, on the main line of the Southern, and from Salisbury to Winston-Salem. At the latter city the Roanoke & Southern, which is practically the end of a route connecting with the main line of the Pennsylvania Railroad, terminates. This road, which is in the hands of a bondholders' committee, joins the Shenandoah Valley road at Roanoke, and the latter by a connection with the Cumberland Valley Railway at Hagerstown, Md., forms part of a route to Philadelphia and New York by way of Harrisburg, Pa.

A glance at the map shows that this is one of the most direct routes between Florida and the North, although it leaves out Washington and Baltimore. Many parts of it form an air line, and railroad officials who are familiar with the situation and country inform the MANUFACTURERS' RECORD that the connecting links could be built for \$12,000 per mile at the outside, while most of the route is through a practically level country. The grades are not as steep as on the present roads through the Piedmont section of the South, while but 145 miles of road would have to be built to complete a connection between these links. A bill is pending in the North Carolina legislature to incorporate the "Winston & South Bound Railroad Co.," which, it is thought, has reference to this measure.

As the northern terminus is by way of the Pennsylvania Railroad, it is supposed that the scheme is being promoted in the interest of the Pennsylvania and Florida Central & Peninsular Companies. At least, such a combination of these lines, linked by the construction of about 145 miles of new road, would form a very important through route between the North and the South.

Progress of a New Company.

The Baltimore, Chesapeake & Atlantic Railway Co., which has been in existence less than a year, is a good indication of how capital may find a profitable investment in the South. The company, which owns most of the steamboat lines plying on Chesapeake bay between the Eastern Shore of Maryland and Baltimore, also owns the railway from Claiborne to Ocean City, Md. It is capitalized at \$2,500,000, and in four months' earned nearly enough to meet its fixed charges for one year, which are \$62,000. Two-thirds of its capital stock is owned by investors outside of Baltimore.

The company will make a specialty of its Baltimore and Ocean City route this season. It is having a steamer rebuilt for service between Baltimore and Claiborne to connect with a train which will land passengers on the sea beach in five hours from Baltimore. A special train, consisting of one parlor, one chair car, one chair smoking car and two ordinary coaches, will be used for this business. Two locomotives are being built, one exclusively for passenger business. In all, the company will spend about \$60,000 for new rolling stock.

The Baltimore, Chesapeake & Atlantic Company intends making a specialty of freight business from the Eastern Shore to Baltimore. Vice-President N. P. Bond informs a representative of the MANUFACTURERS' RECORD that Philadelphia is securing much of the fruit and vegetable business, through the activity of its merchants, which properly belongs to Baltimore.

Contracts for a Texas Road.

A dispatch from Austin, Texas, announces that the Trinity, Cameron & Western has let about \$3,000,000 worth of contracts for building its line from Trinity through Cameron to Georgetown and Granger, Texas. The contracts include 150 miles of steel rails to the Illinois Steel Co. and eleven steel bridges to the Hopkins Construction Co., of St. Louis. Two locomotives have also been ordered from Pittsburg, Pa. This line joins the Missouri, Kansas & Texas at Trinity, and it is understood will be operated as a part of that system. Ex-Governor Hogg is one of its active promoters.

Railroad Notes.

THE Baltimore & Ohio has created the office of general attorney and appointed Mr. Hugh L. Bond, of Baltimore, to fill it.

THE Central Railway Co., of Baltimore, has re-elected George Blackistone as president; Peter Thompson, secretary, and N. H. Bell, treasurer.

THE New York, Philadelphia & Norfolk is to add several Baldwin locomotives to its rolling stock, especially for hauling fruit and vegetable trains.

THE Northeastern Railroad of Georgia is to be sold at foreclosure on April 16 at Athens, Ga. It is thirty-nine miles long, and its bonds are held by the State of Georgia.

THE Plant system will operate on its Savannah, Florida & Western division a train of seven vestibuled day coaches built at the Pullman shops at a cost of \$45,000. They are heated by steam, lighted by gas and have special smoking compartments.

In addition to the work already noted by the MANUFACTURERS' RECORD as ordered from the Memphis Car & Foundry Co., it has just made a contract to build 600 box cars, each of 60,000 pounds capacity. This order will require 900 carloads of raw material.

THE Port Royal & Western Carolina, of which John B. Cleveland, of Spartanburg, S. C., is receiver, is to be sold on the first Monday in April by order of the court. The road comprises 227 miles of main line and branches, and extends from Spartanburg to Augusta, Ga., 133 miles.

THE growth and increasing importance of street railways and the interest taken in them by investors has led the Commercial and Financial Chronicle of New York to begin the publication of a Street Railway Supplement, which will appear quarterly. The first number consists of eighty-five pages filled with valuable information.

FIVE cases of dry goods which were shipped from New York on January 19 via the Seaboard Air Line, consigned to Augusta, Ga., were delivered on the 22d. These goods reached Portsmouth, Va., about noon on Sunday and were not forwarded from there until Monday morning.

which makes the actual time in transit about two days from New York to Augusta.

AT the annual meeting of the stockholders of the Richmond Locomotive Works the following officers were elected: W. R. Trigg, president; Joseph Bryan, vice-president; George F. Jones, secretary, and W. G. Ferguson, treasurer. Messrs. Trigg, Bryan, Lewis Ginter, J. J. Montague and W. H. Palmer were elected directors.

THE Cape Fear & Yadkin Valley Co. has issued a neat "folder," which, besides the local schedule of the road and its branches, contains a timetable of connecting lines, a condensed statement of manufacturing establishments along the line of the Cape Fear & Yadkin Valley Railroad, and other information of value to the general public.

AT the annual meeting of the Gulf, Colorado & Santa Fe Company, held at Galveston, Texas, the following-named officers were elected: Edward King, chairman of the board of directors, New York; Aldace F. Walker, president, Chicago; Daniel B. Robinson, first vice-president, Chicago; George Sealy, second vice-president, Galveston; B. F. Yoakum, third vice-president, Galveston; John M. Bird, secretary and treasurer, Galveston.

The Monazite Industry.

SPARTANBURG, S. C., March 11.

Editor *Manufacturers' Record*:

The mining and gathering of monazite is becoming quite an industry in the northern section of Spartanburg county, S. C., and in the adjoining counties of North Carolina. Every branch and creek in this region is being carefully searched, and mining is now being carried on at many points. I should say that 1500 to 2000 hands are today employed in this county and the business is just opening up. The average output per day is from fifty to 100 pounds to the hand, and the monazite finds a ready sale at six and a-half to eight and a-half cents per pound, determined by its purity. The people of this county would like very much to know what firms in New York, Philadelphia, Baltimore and elsewhere handle the product, and what is the market price per pound. The only concern we know of here is the Welsbach Light Co. T. B. THACKSTON.

Another Industry for the South.

Another opportunity for diversified industry in the South is offered in the manufacture of condensed milk. This is a staple article of food throughout the Southern States, and large quantities made in the North are sold, especially in warm weather. It can be manufactured equally as well in this section as elsewhere. Its manufacture is to be attempted in Louisiana, where Mr. Jean Dufau is erecting a plant. The milk when taken from the cow is placed in a large tank and allowed to cool and the animal heat extracted, when it is conveyed to another tank, where it is subjected to a quick boiling process to destroy the germs; thence it passes through several other refining stages until it reaches the cones, which set upright in a large wooden receptacle, when it is ready for canning. The machinery is to be run by a thirty horse-power engine. One of the merits of this industry is that it would encourage stock-raising, and in this way promote diversified farming.

Location for Steam Laundry.

Mr. L. L. Lowe, of Trauger, Pa., contemplates establishing a steam laundry in the South, and is now seeking a suitable location. Correspondence solicited from those interested.

ANDERSON COUNTY, S. C., is to take steps in the direction of road improvement. A road machine has been purchased, and a force of State convicts will be employed in addition.

COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

Cattle and Cottonseed Meal.

A practical illustration of the value of cottonseed and cottonseed hulls as a food for fattening cattle is given near Atlanta, where Mr. Henry Oliver is feeding a drove of 2000 Texas steers. The locality is near the plant of the Gate City Oil Co., where most of the cottonseed meal and hulls are procured. The animals' food is gradually changed from hay to the meal and hulls, about one and a-half pounds per day being given first and the quantity increased to seven pounds per head. It requires about forty days to complete the change of feeding. Mr. Oliver, who is one of the pioneers in feeding cattle in this manner, states that the manure resulting from the process is richer and more valuable than from any other food that could be given to the cattle. The ammonia in the feed, instead of being taken up by the organs of the body and assimilated into tissue, passes through the animal, and thus preserves its original strength. As much ammonia is found in the manure as in the original cottonseed. A ton of dried manure has been found by chemical analysis to be worth between \$4 and \$6. Regarding the value of the feed, he says: "I have been in the cattle-raising business for several years, and I have never found anything that answered the purpose so admirably as the cottonseed hulls mixed with seed meal. My experience has been that with cattle over four years old the assimilation of the cottonseed goes into the production of fat, and that under this age it is taken up in the processes of growth and the manufacture of muscle."

Feasibility of the Crusher Refining the Crude Product.

Mr. J. J. Culbertson, of the Paris Oil & Cotton Co., Paris and Corsicana, Texas, at each of which important centres a large cottonseed-oil manufactory is operated, furnishes the following important statement concerning the question of oil refining on the crusher's premises. The very prominent position Mr. Culbertson holds in cottonseed-oil circles as a manufacturer of the crude product, together with being a large refiner of the finest grades of cottonseed oil, will lend additional weight to his comments on the business as it is carried on today. Among other matters he says: "In regard to the advisability of the crusher refining his oil, it depends largely on conditions. We have known of some mills that have attempted it, but have made failures, while others have proved successful. On the profits of refining, if there be any—and I will here state that they are at this time very small indeed—the packers of the West assert that the profit belongs to them, and they are making such a small margin between the prices of crude and refined that there is absolutely no profit in refining oil, and that many of the mills that have refineries have been selling to them largely of crude. I regard the question in a general way, to be answered that any business that can be developed towards the elimination of the middleman for the purpose of getting closer to the consumer is only taking the advantages that legitimately belong to it. I regard the refining of oil as being part and parcel of its manufacture, and any profits therein certainly belong to the producer of the crude material. The large consumer of refined oil, however, who has preparations for refining oil does not regard this matter in the same light. Of course there is a limit to this, as there are various departments even in the refined-oil business, such as making butter oil, salad

oil, cooking oil, summer and winter yellow, summer and winter white, and the canning and bottling of same, that perhaps may belong to another department, which, however, may soon be regarded as being part and parcel of our business. It depends greatly on the condition of a business of this nature. There is a line to be drawn, on the same ground that the interests of an oil mill require cottonseed, and that the growing of the seed itself is part and parcel of the business, which is hardly tenable. The consumption of some of its products in the way of feeding meal and hulls in the feeding of cattle is a separate department of this business that some consider to be a legitimate part of it, that is, the feeding of cattle on its products, meal and hulls. The point would then be made that as there is a profit to the seller of cattle in the manufacture of products therefrom, it would require the addition of slaughterhouses and various departments thereto for the purpose of fully availing themselves of the different products made from the cattle. It depends, as I have said, on the conditions and the education of those in the business. The time may come when we may regard with reason things of this sort as being legitimate, but at this time we have not been sufficiently educated to it to understand it as such. The process of development in this respect, however, is going on, and the advancement of this business in the departments may be large in the future."

The Market for Cottonseed Products.

NEW YORK, March 12.

A superficial view of the situation with regard to the cotton-oil market would naturally lead to the inference that higher values for all the grades will soon obtain, primarily owing to the advance in lard, the receipt of cheap seed at the mills and brighter prospects for home and foreign cake consumption. The position firmly maintained by a large number of the mills with regard to holding stocks on a declining market has scarcely been warranted in view of current happenings, and, notwithstanding the foregoing favorable conditions, it cannot be said that values have improved, but, on the contrary, a weaker feeling is apparent. The changing trade conditions which have marked the season's progress in the cotton-oil world have had no previous parallel. The supply of low-priced seed has influenced not a few of the mills by prolonging their regular running period, thus appreciably increasing the season's output. The manufacture of compound lard has very materially increased, and the fact that a number of new plants will be in operation before the expiration of many months presents an additionally interesting feature in the development of the cotton-oil industry. It would appear a matter for surprise that comparatively few sales of oil have been made to soapmakers when the relative prices of the oil and tallow have been considered. Crude at the mills remains unchanged in prices, 18 to 19 cents, as to location and size of order. Barreled crude at this market is firm at 22 cents, at which figures 45 000 gallons were placed. In addition to the foregoing 3100 barrels arrived by sailing vessel, but this lot can scarcely be said to have affected outside trading, being the products of the American Cotton Oil Co.'s mills, delivered to a kindred concern here identified with the manufacture of compound lard. Sales of prime summer yellow were effected toward the close of the week on a liberal scale at 26 cents. The demand from Europe is limited, but England is still in the market for good off-grade yellow at inside prices. A fair volume of exports at this price were consigned to English ports. The demand for edible oils is unusually slow, and, with disproportionate supplies available, values have receded. It may be said this has special reference to butter oil, which is on offer at

27 cents. White oil is dull and quoted at 29 cents. The following are current quotations: Crude, prime, 22 cents; off grade, 20 to 21 cents; prime summer yellow, 26 to 27 cents; off summer yellow, 25 to 26 cents; winter, prime yellow, 34 to 36 cents; butter oil, 27 cents; winter white, prime, 35 to 37 cents. Consignments aggregating 1400 barrels prime and off-grade summer yellow were forwarded to Liverpool from this port and New Orleans. Of the foregoing, 500 barrels were prime at 25¼ cents.

Cake and Meal.—Private advices from the South point to more activity in this line than has characterized the market since the opening of the season. Exports have not assumed the proportions that the near future will doubtless develop, owing to the numerous enquiries from foreign sources, but home consumption during the past few weeks has advanced with rapid strides. Better prices are procurable, and stocks are being quietly reduced in many localities. Fifteen dollars per long ton is the predominant price for New Orleans loading. In England complaints are rife with regard to the hardness of certain varieties of American cake, a circumstance which reduces its value as a stock-feeding product. The difficulty may be traced to imperfect cooking, which consists in leaving an abnormal proportion of moisture in the material. In the first instance, the meats very probably contain a heavy percentage of moisture, which is not sufficiently evaporated in the heating kettles prior to the pressure application. When subjected to pressure, the material spreads, and subsequently becomes extremely hard. The remedial measures, therefore, consist in subjecting the material to a more extended heating period, the accelerated temperature to be uniformly distributed throughout the mass by suitable agitation. This very important manufacturing process deserves more attention at the hands of the crusher than it receives, and upon which subject your correspondent will have more to say in future reports.

How to Attract Attention.

Messrs. Dusen & Bro., Crowley, La., one of the largest real-estate firms in the South write to the editor of the *Southern States* magazine as follows:

"The *Southern States* is evidently read in all parts of the country, and its readers evidently know a good thing when it is brought to their attention. It may be both interesting and useful to you to know that the advertisement we ordered inserted in it as an experiment, with some doubt as to its possible profitability, has proved one of the most successful and satisfactory experiments we have ever made. We have received letters mentioning our advertisement in the *Southern States* from, we might say, nearly every State in the Union, and we have found, by following up the letters closely (which we make it a point always to do), that the writers of them mean business, and to such there is no trouble in selling farms in this great and growing rice country, where a farmer can make the cost of his land in one or two years. We consider the cost of the advertisement insignificant in comparison with the benefit it has been to us."

The *Southern States* magazine is published by the Manufacturers' Record Publishing Co. Every land-owner in the South who desires to reach prospective buyers in the North and West should advertise in it.

THE people of Accomac county, Virginia, are in favor of improving roads, and have ordered two machines for this purpose to be operated by horse-power.

A DISPATCH from Galveston, Texas, states that by the jetty system the entrance to the harbor has been deepened to eighteen feet.

in the clerk's office at Lake City, Fla., last week. This makes the total of land sales in Columbia county during the past two weeks over 70,000 acres, with other large deals pending.

THE Yellow Poplar Lumber Co., controlling three saw mills in the vicinity of Ashland, Ky., has announced its intention of removing one of them from West Cattleburg, Ky., on account of the failure of the city to fulfill agreements as to electric lights, water supply and tax rate.

A COMPANY has been incorporated at Chase City, Va., to be known as the Chase City Manufacturing Co., for the purpose of manufacturing all kinds of furniture, buggies, wagons, doors, sash and blinds, etc. The capital stock is \$25,000, to be paid up by April 1. All the stock has, it is said, been subscribed.

THE following vessel cleared from Savannah, Ga., last week: Schooner Edward P. Avery for New York with 418,000 feet of pitch-pine lumber, and the schooner James Boyce for New York with 13,400 cross-ties; the schooner Herman B. Ogden cleared on the 9th for New York with 12,093 feet of cross-ties, and the schooner M. V. B. Chase for Phippsburg, N. C., with 384,029 feet of lumber.

AMONG the clearances from Pensacola during the week ending the 9th inst. were 1,982,000 feet of lumber, 80,282 cubic feet of timber, 52,720 feet of pickets and 29,000 shingles. The lumber and timber charters reported were a bark from Pensacola to Rio de Janeiro at \$14; a schooner, Pensacola to Philadelphia, \$5.25; a British steamer, 1622 tons, from Pensacola to Liverpool with sawn timber, 101/3, and a steamer from Pensacola to Liverpool with sawn timber, 98/9, or Sharpness, 101/3.

Good Roads and Cotton Mills.

Goods roads and cotton mills are not often classed together as factors in making a community prosperous, yet their relations are very close. One of the most flourishing cities in the country is Charlotte, N. C., which is located in a section noted for modern-built highways and its modern cotton mills. In 1893 the city had four cotton factories, one compress (85,000 bales), one oil mill, population 11,557. For 1895 the record is eight cotton factories, two compresses (143,000 bales), two oil mills (one of them the largest in the South), three planing mills, one furniture factory, one bagging and tie factory, one sash, door and blind factory, new city hall, cost \$65,000; 650 new houses, macadamized county roads, ten miles streets macadamized and paved, eight new churches, paid fire department and two hotels.

Not only are the principal streets well paved, but many of the country roads leading to the city are models of good road building. As a result the farmers in the section adjacent to the city have no difficulty in bringing in their cotton and other products by wagon at all times of the year, thus giving the city merchants a steady trade from the agricultural sections. The cotton and oil mills can obtain much of their raw material direct from the source of supply, thus saving both the farmer and the manufacturer middlemen's charges. Naturally the establishment of so many and varied industries attracts people to the city to find employment and to invest in different enterprises, while the weekly pay-rolls keep a large amount of money in circulation. It would be interesting to analyze all these conditions, which, to a certain degree, depend on the cotton mills and good roads, but their benefits, direct and indirect, are plain to the reader, who can easily trace out the results they assist in accomplishing for himself.

THE MANUFACTURERS' RECORD believes that manufacturing and good roads would form an excellent creed for Southern towns to adopt.

PHOSPHATES.

Sales of Phosphate Land.

OCALA, FLA., March 9.

Editor Manufacturers' Record:

An important transaction in phosphate has recently been closed by Mr. Arthur Meigs, of Jacksonville, and associates in the Albion district, by which Gen. E. P. Bailey gets control of a very valuable deposit located three and a-half miles south-east of Albion. The tract consists of eighty acres, and is known as the Mac-Corkerdale Hill. The deposit is of high-grade rock, dark in color and easily handled. A spur road now being built by General Bailey to connect a new mine he has just opened two miles north of Mac-Corkerdale property will be extended to it, and will connect with the main line of the Florida Central & Peninsular Railroad between Albion and Archer. The mining will be on royalty, at a good price to the owners. Messrs. Rerdell and Mayfield are erecting a phosphate plant for M. Achillo Laurent in Citrus county. It will have a capacity of 100 tons per day, and will be of the most approved design. The volume of business at Fernandina for the month of February was very light. This is due to the fact that European stocks of phosphate have been large, and are only now getting to a point of depletion which will compel buyers to again enter the market. In the meantime the miners have been piling up rock, and the storage-bins are now quite full. The phosphate shipments from Fernandina for March will be good, and already vessels have been chartered to load about 28,000 tons for European ports. W. W. Pickford, of London, England, has just secured an interest in a phosphate plant near Dunnellon at a cost of \$10,000.

French Buying Phosphate Land.

THE MANUFACTURERS' RECORD is informed that Mr. Samuel Teague, of Teague Bros., at Ocala, Fla., representing H. B. Hollins & Co., of New York, has sold to Mr. Ritchie for a French syndicate all their lands in the High Springs section.

It is reported that there is considerable interest on the part of French investors in phosphate lands, and that the purchasers of this property are still in the market for other phosphate properties.

Phosphate Markets.

OFFICE MANUFACTURERS' RECORD, BALTIMORE, March 14.

The unsettled state of the market for fertilizers generally has given the local phosphate business partial setback, and the volume of business is hardly worthy of comment. The nature of the demand at points of production shows that the business is nearly all foreign, very little domestic business being done. In South Carolina the sale of rock is very light for the coast-wise trade, manufacturers only buying for immediate wants. The development of land rock is going forward satisfactorily, and river miners are generally getting in good work. In Florida at points of shipment warehouses are generally well stored, in anticipation of heavy foreign shipments during March and April. The tone of the market is steady, closing as follows: South Carolina, \$3.25 to \$3.50 for crude rock, \$4 to \$4.25 for hot-air-dried and \$6.50 for ground rock, all f. o. b. Charleston; Florida rock is quoted \$3.25 to \$3.50 for river pebble and \$4.65 to \$4.75 for land rock, all f. o. b. Tampa or Punta Gorda. The schooner Governor Hall arrived this week from Charleston with 850 tons of phosphate rock, and the schooner Blanche Hopkins was chartered to load at Ashpoo, S. C., for Baltimore. The New York charters reported are as follows: A British steamer, 2000 tons capacity, from Charlotte Harbor to Gaston with phosphate at 15/6, June—chartered abroad; a British steamer, 996

tons, from Port Royal to Bristol with phosphate at 15/, May—chartered abroad; a British steamer, Fernandina to Hamburg with phosphate at 15/, March-April—chartered abroad; two schooners, Ashley river, S. C., to Philadelphia at \$1.90 (coal out at 90 cents to Charleston), and a bark, 557 tons, from Tampa to Baltimore with phosphate rock at \$2.05.

FERTILIZER INGREDIENTS.

The general market for ammoniates shows very little improvement, and the situation during the past week has been quiet. The improvement in the grain market has given material a stronger tone, and buyers and sellers are apart in their views. An unsettled state of agricultural interests in the South restricts trade to a great degree, and manufacturers are not buying for future consumption. Under liberal offerings nitrate of soda has declined, and stocks are more than ample for present wants. Sulphate of ammonia, blood and tankage are about steady. Other articles on the list are unchanged.

The following table represents the prices current at this date:

Sulphate of ammonia, gas.....	3 25@	\$3 30
Sulphate of ammonia, bone.....	3 20@	—
Nitrate of soda.....	1 85@	1 95
Hoof meal.....	1 80@	—
Blood.....	1 95@	2 00
Azotine (beef).....	2 00@	—
Azotine (pork).....	2 00@	—
Tankage (concentrated).....	1 70@	1 75
Tankage (9 and 20).....	1 70 and	10
Tankage (7 and 30).....	16 00@	17 00
Fish (dry).....	22 00@	23 00
Fish (acid).....	15 00@	15 50

CHARLESTON, S. C., March 12.

The phosphate market here remains dull and featureless, little being done in the way of sales. Inquiries for spring and summer cargoes are more numerous. Local manufacturers are not purchasing, but await the result of the season's trade in fertilizers before preparing stock for the future. The domestic trade is also limited. The river companies report a continued large volume of business to European points. Prices are \$3.25 for crude, \$3.75 to \$4 for hot-air-dried and \$6.50 for ground rock, f. o. b. Charleston. The shipment by water was the C. D. Hall, 650 tons for New Haven. In port and loading are the H. B. Hussey, Fannie Brown, Grace Andrews, L. J. Lewis, C. Phinney, N. W. Howlett and F. P. Lee. The shipments coastwise since September 1 are 43,936 tons crude and 1365 tons ground rock, against 58,155 tons crude and 300 tons ground rock for same date last year.

Phosphate and Fertilizer Notes.

THE Norwegian steamship Brittanica cleared last week from Savannah for Revel and Stettin with 1505 tons of phosphate and other merchandise.

THE British steamship Dora Foster, which cleared from Savannah last week for Barcelona and Genoa, had among her cargo 1144½ tons of phosphate for the latter port.

THE Alexandria Chemical & Fertilizing Co., of Alexandria, Va., is erecting a large warehouse in that city. The building will be finished and ready for occupancy very shortly.

THE bark Ambassador arrived at Jacksonville, Fla., last week from Trinidad, West Indies Islands. She will load with phosphate for Honolulu, and will sail in about two weeks.

A DISPATCH from Bowling Green, Fla., states that the National Peace River Phosphate Co. has started up its works again. The company has been making extensive improvements, and has enlarged its dry-bin capacity to twice its former size.

WITHIN the last few days the farmers in Georgia have been buying fertilizers in larger quantities than at any time this season. This is shown by the increased number of fertilizer tags that have been issued from the office of Commissioner Nesbitt within the last fortnight.

THE schooner Governor Hall cleared

from Charleston, S. C., last week with 816 tons of phosphate rock, and the schooner William Johnson for Boston with 1075 tons. The total clearances of phosphate since September 1 amount to 43,936 tons, against 58,155 tons in 1893-94.

MESSRS. J. F. WHITNEY & Co., ship brokers, of New York, report the charter of steamship Lisnacrieve from Southern ports to the United Kingdom or Continent with phosphate; also the British steamship Macedonia taken to load phosphate at Fernandina for Stettin, Germany.

MR. K. B. HARVEY, deputy collector of the subport of Punta Gorda, reports the following clearances: On the 4th inst., American schooner J. W. Bird for Baltimore with 1200 tons of phosphate from the Foote Commercial Company, and on the 5th, steamship Leaconfield for St. Louis de Rhone, France, with 2900 tons of phosphate from Comer, Hull & Co.

A SPECIAL from Ocala, Fla., states that Mr. Albertus Vogt gave confirmatory information on the 6th inst. in regard to the sale of phosphate lands. He stated that he sold 240 acres belonging to the John F. Dunn estate, leased 120 acres of the Atkinson estate, and 200 acres in which Colonel Cruger, of New York, and E. C. Bird, of Ocala, have a half-interest, for a royalty of \$1 a ton on all the phosphate mined and a stipulated amount to be taken out each year. The party who is said to have managed the purchases and leases is said to be Col. Francis C. Fishburne, of Charleston, S. C., one of the pioneers in the business. The lands named are near Dunnellon.

ADVICE from Acme, Fla., regarding the outlook for phosphate in that section are more favorable than they have been for some time past. The United States Phosphate Co. is making a number of improvements for the purpose of again increasing its output. Mr. L. W. Maxwell, of Fort Meade, has just finished for this company a new dredgeboat 66x25 feet, which was launched last week. Two boilers are already in position; one is sixty-five horsepower Scotch boiler, built by the Merrill-Stevens Engineering Co., of Jacksonville, Fla., and the other from the Messrs. Ames, of Oswego, N. Y. A new engine of forty-five horsepower and centrifugal pump are on their way from Morris Machine Works, of Baldwinville, N. Y., and will be set up as soon as they arrive. The track from the mill to the deposit is being lengthened to do away with the long water carriage. There will be eight cars in use with a capacity of three net tons each, or two and a-half of dry pebble. With these improvements completed the output will be fifty tons per day.

THE shipments of phosphate from Fernandina were very light for February, but for the current month there promises to be a renewal of last season's activity. The demand has been quite active lately, owing to a reduction in stocks abroad. From the number of charters previously reported there will be heavy shipments during March and April. The following vessels are reported to load at Fernandina during the current month: Steamship St. Oswald, 2400 tons for Hamburg; steamship Glenhaffen, 3000 tons for Hamburg and Hull; steamship Glanystwyth, 2500 tons for Gothenburg and Stockholm; steamship (not named), 1800 tons for Hamburg; steamship Rosetti, 2750 tons for Cork and Dublin; steamship Macedonia, 2200 tons for Stettin; steamship Lowlands, 2400 tons for Hamburg; steamship Norlands, 2300 tons for Hamburg; steamship North Flint, 3000 tons for Hamburg; steamship Cundall, 3200 tons for Rotterdam, and steamship Petunia, 2100 tons for London, making a total of 27,650 tons. The only charter reported in New York last week was a British steamship, 1384 tons, Fernandina to Hamburg with phosphate at 15/, March-April—chartered abroad.

MECHANICAL.

A New Injector.

We illustrate the "International," a new injector for which the makers claim remarkable results. During the past few years a great number of automatic injectors have been put on the market, but in reviewing the development of injectors the World's Specialty Co., of Detroit, Mich., which is introducing this new injector, sums up the situation as follows:

"Up to the present time automatic injectors have been limited in their range, as

its seat against collar "M," but does not finally close until the current to the boiler is firmly established. The valve "K" in the meantime is closed by the vacuum in the overflow chamber. By a new construction of the parts in the steam chamber, the same valve handle "A" opens valve admitting steam to the injector, and at the same time regulates the amount of water supply; therefore, no valve is required in the suction pipe, nor is one necessary in the steam pipe, except as a convenience, should it be desired to remove the injector at any time while carrying steam on the boiler.



FIG. 1.—THE INTERNATIONAL INJECTOR.

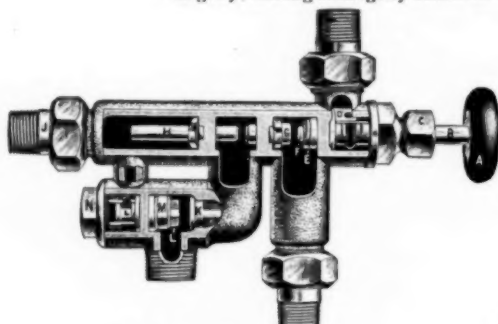


FIG. 2.—SECTIONAL VIEW.

it has always been found impossible to retain the automatic qualities, and at the same time handle a hot-water supply, or give the injector a greater range than 120 to 130 pounds between highest and lowest steam pressures. The positive injector reached its limit fifteen years ago, and while it has secured better results on hot water than the automatic injectors, yet a first-class positive injector is high-priced, and requires considerable attention from the operator."

The "International" injector is a new departure, being based on new principles, by virtue of which it combines, it is claimed, all the good features of both automatic and positive injectors of the past, and surpasses both in working qualities. The principal new feature in the "International" is the fact that the current of water to the boiler is established against atmospheric pressure instead of against

Another new feature is the fact that the combination and delivery jet "H" has no spill holes, and is, therefore, of great durability. The manufacturers make the following claims for this injector: That it will start at thirteen to fifteen pounds steam pressure, and work from that point up to 250 pounds steam pressure, giving it a range of 235 pounds; is automatic and restarting at any and all pressures; lifts the water vertically twenty to twenty-two feet, and handles a hot-water supply of 135° at sixty-five to eighty pounds of steam, 125° at 125 pounds of steam; by delivering the minimum capacity it will put water into the boiler at 200° at eighty pounds steam, and at 260° at 150 to 200 pounds of steam, the water being taken from a four-foot lift at 74°. One of the notable features about this injector is its grading. Its minimum capacity is 66⅔ per cent. less than the maximum capacity of the same size. The

draught, two feet. The forward deck is eight feet seven inches; pilot-house, seven feet one inch; upright lockers, one foot; saloon, six feet eleven inches; galley and toilet, five feet; engine compartment, nine feet ten inches; after deck, five feet eleven inches.

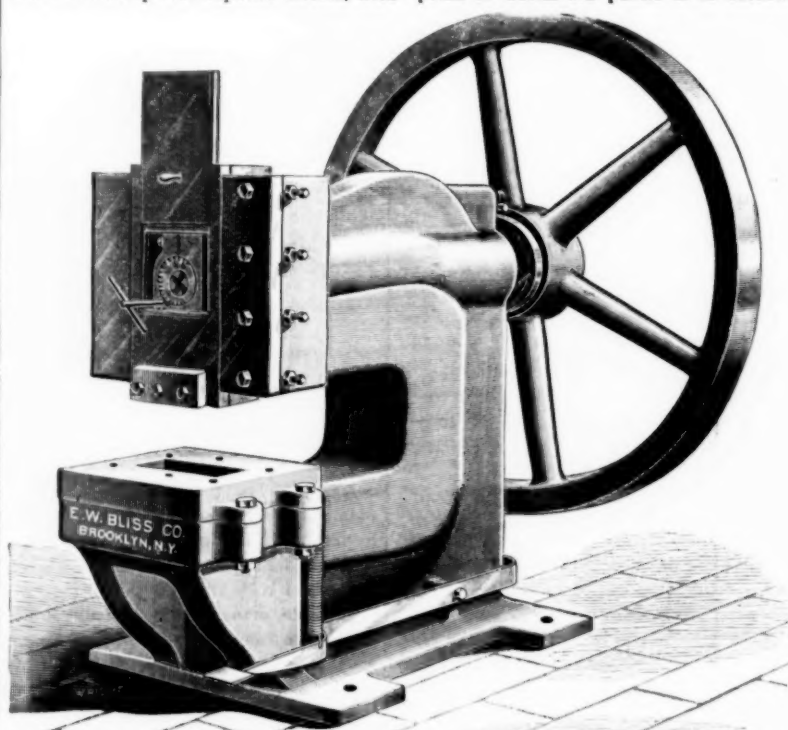
Pilot-house.—Same elevation as saloon; entrance at forward end, with steps to floor; extension lids on seats for making bunks; sliding-door to saloon; upright locker, arranged as per drawing, with wash-basin; pilot-house, as well as remainder of cabin, to be finished in mahogany; sliding mahogany blinds or damask

ets; set of flags; brass-tipped boat-hook; set of mahogany boarding steps; canvas deck and hatch covers; two steel davits and tackle for hoisting tender, arranged for use on either side of launch; awning arranged for forward deck; hair-filled canvas-covered cushions for pilot-house and saloon, with back sections; four pillows; slip covers for cushions and pillows; Wilton carpet for pilot-house and saloon; linoleum for galley and engine compartment; canvas-covered hair-filled cushions for engineer, and two pillows; 150-gallon fresh-water tank under floor, connecting with galley and wash-basins; commode in locker aft; canvas storm curtains for engine compartment; three brass sailing lights and screens; one 50 and one 75-pound galvanized-iron folding-anchor and ropes; six cork fenders and six brass fender cleats; six life jackets; galvanized naphtha pump and strainer funnel.

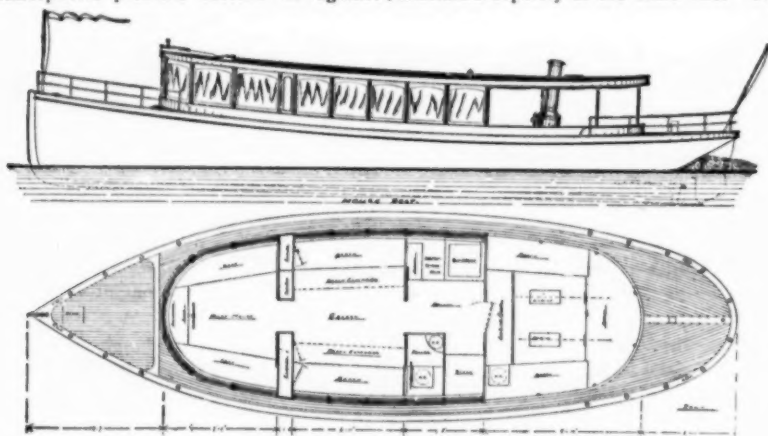
No. 78 Deep-Throat Power Press.

Up to a comparatively recent period the use of deep-throat punches was almost entirely limited to the punching and shearing required in bridge, railroad and structural iron work, which does not often call for the accuracy and adjustments needed in working blanking, perforating or forming dies on thin sheet metals. Within the last few years, however, much of what had previously been done by hand in the production of stoves, wrought-iron ranges, zinc work, etc., has been brought within the range of die operations, calling for a press which combines a deep throat with the necessary accuracy and adjustments.

The Bliss No. 78 press—shown herewith is designed for this purpose. Its punch-slide is guided and gibbed so as to secure accurate cutting, and is provided with an eccentric adjustment, permitting the regulation with precision and ease to the exact point to which the punch is to descend.



NO. 78 DEEP-THROAT POWER PRESS.



A MODEL HOUSE-BOAT.

direct boiler pressure. This is accomplished by the combination of overflow valve "K" and pressure valve "L." When the injector starts, the steam passing through the steam jet "F" and suction jet "G" passes down through the overflow chamber, forcing valves "K" and "L" away from their seats, and opening the passageway through the overflow for the escape of steam, which by its pressure against the valve "H" holds both valves away from their seats. A vacuum being created between jets "F" and "G," the water is lifted, and passing through the suction jet "G" and combining and delivery jet "H" on its way to the boiler, passes down through the secondary overflow, and out through the passageways between pressure valve "L" and pressure valve collar "M." As the pressure increases in the delivery chamber around the delivery jet "H," valve "L" is gradually forced to

parts are made interchangeable, and are all easily accessible for cleaning, and the injector is fully guaranteed.

A Model House-Boat.

The house-boat is becoming a popular craft for water-touring. Southern streams afford such varied attraction for outings that the legion of ardent lovers of this sort of pleasure in the South take great interest in all improvements tending to give greater comfort and enjoyment on boats of this class. The illustration we give presents a view of a new house-boat lately built by the Gas Engine & Power Co., of Morris Heights, New York city, that is a model of its class. This style of boat is added to the extensive list of naphtha launches built at these works, and will be constructed to order. A full description is given by the specifications, which are as follows: Length, forty-four feet; beam, thirteen feet, and

copper tanks, condenser and feed pipes, pumps, valves and all appurtenances complete, and each to be independent of the other in its operation; brass bilge pump and power whistle; engine tools and oil can.

Fittings and Furnishings.—Name in brass letters each side of bow; brass steering wheel and bronze rope gear; bells and pulls for signaling engineer; binnacle and Ritchie spirit compass; brass speaking-tube from pilot-house to engine room; two brass lamps for cabin, one in pilot-house and two in galley; two brass lanterns for engineer; one anchor light; brass chocks cleats; double brass rails; flagpoles and brass sock-

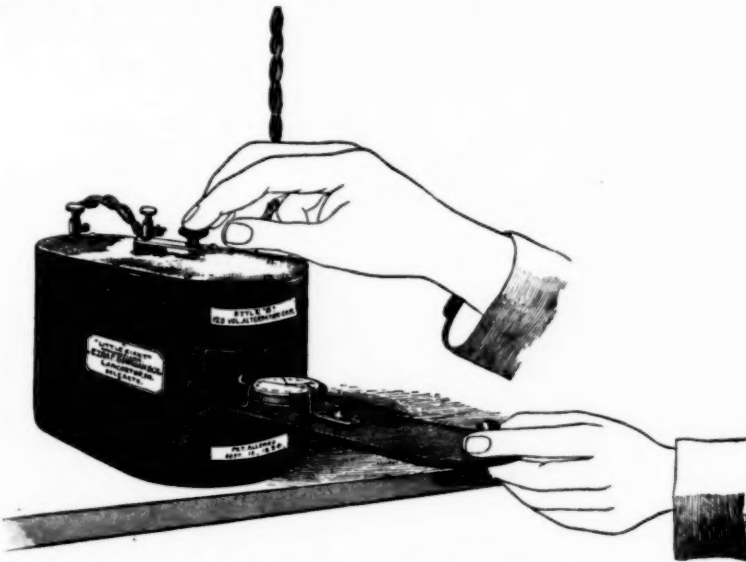
The nature of this eccentric adjustment appears in the illustration. It can be brought into any needed position by simply turning the pinion wrench shown, after having loosened the clamp bolt. The pressure is in this manner always taken on solid metal instead of falling on screw threads. The action of the press is controlled by means of a treadle, which operates an automatic clutch so as to insure the stopping of the slide at the highest point of the stroke. This machine is mostly made as a fly-wheel press, but for work requiring a slower and more powerful action it is provided with back gearing. I

is also frequently furnished with stay rods, so as to fit it for heavier work where a great depth of throat is not needed.

The principal dimensions are as follows: Depth of throat, twenty-four inches; distance from bed to top of throat, nine and three-quarter inches; motion of slide, one and one-quarter inches; size of bed, 16x16 inches; standard opening in bed, 8½x8½ inches; diameter and face of fly-wheel, 54x5 inches; weight of fly-wheel, 900 pounds; speed of fly-wheel, ninety revolutions. The complete weight of press approximates 5500 pounds.

The "Little Giant" Demagnetizer.

Watchmakers and repairers will be interested in the novel machine illustrated here-



THE LITTLE GIANT DEMAGNETIZER.

with. It is the "Little Giant" demagnetizer. Frequently the most serious difficulty in a watch whose efficiency is impaired is that it has become magnetized. The general use of electricity has made this trouble quite prevalent, and the progressive watchmaker should be prepared to overcome the difficulty. After many tests the machine shown on this page has shown its value in removing every trace of magnetism from a watch without taking the movement from the case.

The demagnetizer is made in three sizes or resistance grades to meet the requirements of the different voltage power furnished by the various electric-light or power-supply companies. Style A is adapted for the direct current of 110 volts; style B, which the cut shows, is made for 110 alternating resistance, and style C for the 52-volt alternating current.

Insulated wire and plugs to fit the arc lamps are furnished with each machine, and the operation of getting it in order is simply to attach the plug to the incandescent lamp, and it is ready for the demagnetization of as many watches as are on hand.

Arrangements have been made with the inventors of this machine by which Ezra F. Bowman & Co., of Lancaster, Pa., the well-known tool manufacturers, secure the sole agency for its sale. The three different machines made cover every current furnished by the different electric-lighting companies throughout the United States.

The Nowotny Telephone.

A telephone that has demonstrated its adaptability for commercial-exchange service, as well as for private lines, is the Nowotny, which is illustrated herewith. The Nowotny Electric Co., of Cincinnati, Ohio, which is introducing this telephone, confidently asserts that it will operate fully as well as the best telephone used by the American Bell Company for its exchange service, and points to the hundreds of the Nowotny 'phones in successful operation. The Nowotny telephone is supplied with a battery transmitter of the latest design,

which is considered perfect in its action. The principle of this transmitter is said to be similar to the Blake, but superior to it. The receiver is of modern pattern, and is of that type known as a compound receiver.

The magneto call-bell used in connection with this instrument is capable of ringing through a resistance of 10 000 ohms.

The Nowotny A No. 1 battery is used in operating the transmitter in this instrument, and is claimed to be the best and simplest battery for this purpose, because of its enduring properties.

This telephone will convey articulate speech at a distance of 1000 miles. The instrument is handsomely finished in either antique oak or walnut, with nickel-plated trimmings. The best possible electrical



THE NOWOTNY TELEPHONE.

market affords is used, in connection with skilled workmen and correct ideas; hence its telephones are noted for their wonderful volume of sound and clear articulation of speech.

The company states that these telephones do not infringe anyone's patent rights, since the famous suit brought by the

government against the Bell Telephone Co. has been decided. In this decision Judge Carpenter orders: "Let there be a decree issued that letters patent No. 463,569, issued November 17, 1891, to Emil Berliner, are void, and shall be delivered up to be cancelled as prayed for, and costs."

Information About Belting.

The exacting service that belting is called upon to perform, the varying uses and strain to which it is put and its application practically wherever a machine or piece of mechanism is operated makes of general value any trustworthy information on the subject. A pamphlet along such lines comes to hand from a concern whose close study and experience in the production of belting well qualifies it to speak advisedly. It is interesting to note from this publication the scientific methods pursued in turning out belts for various uses, and with what nicety of detail is calculated the strength and requirements for special service, and leading to the production of many styles of belts. There is the short-lap belt made from the centres of heavy hides, and designed for the most exacting service; a belt made especially for high speed from carefully-selected leather; a special belt for electrical purposes, whose fibre is the strongest that it is possible to obtain, and yet not making too heavy a belt; a light double belt to do duty where the work is too hard for a single belt, and the pulleys too small for a stiff and heavy double belt; there is rubber belting with an extra strong duck centre, solid white cotton belting and other variations. Special tools for testing speed and adjusting belting are also an outgrowth of the business. The pamphlet we refer to, which is issued by the Akron Belting Co., of Akron, Ohio, devotes over thirty pages to practical rules, hints and suggestions to belt users. The information given was prepared by authorities, and, besides being conveniently arranged, possesses the merit of reliability. It can doubtless be obtained by anyone interested on application to the company.

Iron Markets.

CINCINNATI, March 9.

The trend of trade is gratifying, as the volume of business has increased in a very general way, indicating greater activity in industrial enterprises in nearly every branch. The pipe works are enjoying a continuance of liberal orders, and the improved conditions of the railroads of the country, referred to in our last report, justified the expectation that their buying facilities will warrant their complete equipment with the rolling stock necessary for the constantly augmenting traffic the general trade revival is constantly demanding.

The healthy request for structural shapes, building and bridge material has developed an aggregate demand for Bessemer pig iron far beyond the capacity of the large concerns making their own, and they have purchased approximately 150,000 tons outside, which naturally stimulated the Bessemer market. It may be safely said that the outlook is more promising and hopeful than it has been for many months. Several prominent concerns have placed large pig-iron orders during the week under review, feeling confident that the tide has turned, and the flow set in, bearing upon its crest the welcome return of prosperity and better times. As yet prices are unchanged.

We quote for cash f. o. b. Cincinnati:

Southern coke No. 1 foundry.....	9 50@10 00
South. coke No. 2 foundry and No. 1 soft.....	9 00@ 9 25
Hanging Rock coke No. 1.....	11 50@ 12 00
Hanging Rock charcoal No. 1.....	15 00@ 16 50
Tennessee charcoal No. 1.....	13 00@ 14 00
Jackson county stone coal No. 1.....	14 00@ 14 50
Southern coke, gray forge.....	8 25@ 8 50
Southern coke, mottled.....	8 00@ 8 25
Standard Alabama car-wheel.....	15 00@ 16 00
Tennessee car-wheel.....	14 50@ 15 00
Lake Superior car-wheel.....	13 50@ 14 00

PHILADELPHIA, March 9.

With the exception of some purchases

made by the cast-iron pipe works on the Delaware, the buying of pig iron has been confined to small lots, running from carloads up to 200 tons. The same parties who have been demoralizing the New York market have been also very active here, and the result is that the market on Alabama iron is temporarily not quite so strong, and some deals that might have been closed have been pushed along for consummation later on, as it is a good thing to do so under the circumstances. There is a better demand for Bessemer in the Pittsburgh district, one inquiry coming from a party who usually makes enough to run his steel plant.

We quote for cash f. o. b. Philadelphia docks:

Standard Alabama No. 1 X.....	11 75@12 00
Standard Alabama No. 2 X.....	10 75@ 11 00
Strong lake ore coke iron No. 1 X.....	13 00@ 13 25
Strong lake ore coke iron No. 2 X.....	12 25@ 12 50
Lake Superior charcoal.....	15 50@ 15 75
Standard Alabama C. C. C. W.....	17 75@ 18 00

We quote for cash f. o. b. New York:

No. 1 standard Southern.....	11 75@12 00
No. 2 standard Southern.....	10 75@ 11 00
No. 1 standard soft.....	10 75@ 11 00
No. 1 foundry lake ore coke iron.....	13 00@ 13 25
No. 2 foundry lake ore coke iron.....	12 25@ 12 50
Lake Superior C. C. C. W.....	15 50@ 15 75
Southern C. C. C. W.....	17 75@ 18 00

ST. LOUIS, March 9.

Even the pessimist must acknowledge that there is a decided improvement in trade. The iron market has been unusually active the past week. Sales are running largely to carload orders, but they come in good numbers, and are well distributed for all classes of iron. An occasional order of 100 to 500 tons of Southern iron is placed.

The car-builders are busy. Several shops have turned out a larger number of cars in the past two months than during the entire year of 1894.

We quote for cash f. o. b. St. Louis:

Southern coke No. 1.....	10 25@10 50
Southern coke No. 2.....	9 75@ 10 00
Southern coke No. 3.....	9 25@ 9 50
Southern gray forge.....	9 00@ 9 25
Southern charcoal No. 1.....	14 00@ 14 50
Missouri charcoal No. 1.....	12 50@ 13 00
Ohio softeners.....	14 00@ 14 50
Lake Superior car-wheel.....	15 50@ 16 00
Southern car-wheel.....	16 00@ 16 50
Genuine Connellville coke.....	4 40
West Virginia coke.....	4 40

BOSTON, March 9.

As spring approaches the feeling of encouragement among the foundrymen seems to increase.

Numerous contracts for cast-iron water and gas pipe have recently been closed, and others will be placed shortly, and judging from the prices, the pipe foundries are much firmer in their ideas than they were a few weeks ago.

We hear of some large contracts for cars having recently been made in the West, and we hope that the New England railroads will soon see the necessity of increasing their rolling stock, thereby giving the car-builders in this territory something to do.

Should the contemplated building of numerous cotton mills in the South be realized, it means an early improvement in some lines of business in the Eastern States, and while we should dislike to see this section of the country lose a portion of a manufacturing industry which has been for years so closely identified with it, we believe the results will be beneficial. With an increasing demand, together with skilled labor, we think the mills here will be able to more than hold their own; in the meantime, as much new and improved machinery will have to be made. It will help to stimulate business with some of our iron foundries and machine shops, which for the past two years have been rather inactive. We expect to see a steadily-increasing business from this time on.

We quote for cash delivered Boston:

Alabama No. 1 foundry.....	12 00@12 20
Alabama No. 2 foundry and No. 1 soft.....	11 50@ 11 75
Alabama No. 3 foundry and No. 2 soft.....	11 00@ 11 25
Alabama No. C. C. C. car-wheel.....	18 50@ 19 05
Strong L. S. coke iron No. 1 foundry.....	13 75@ 14 00
Lake Superior charcoal car-wheel.....	16 50@ 17 00
American-Scotch (Northern) No. 1.....	13 75@ 15 00
Jackson county silvery No. 1.....	17 00@ 17 50

ROGERS, BROWN & CO.

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department, on pages 107 and 108.]

Knitting Mill at Athens.

The proposed knitting mill at Athens, Ga., noted last week, will be built at once, Messrs. Jas. H. Dootson and W. R. Lipscomb having secured all the subscriptions to the capital stock of \$10,000. The number of shares will be 2000, according to the Textile Excelsior, and over 800 of these shares have been taken by Northern people, the rest being subscribed for by citizens of Athens. A building, 40x75 feet, will be erected, and the latest and most improved machinery will be placed therein; plant will run night and day, and thirty hands will be employed. The capacity of the mill will be 1000 dozen per week, consisting of ladies', misses' and children's hose and gentlemen's half-hose. It is stated that a Baltimore firm has agreed to take the entire output of the mill and pay cash for it.

A 20,000-Spindle Mill.

Mr. W. T. Northington, president of the Prattville Cotton Mills & Banking Co., of Prattville, Ala., informs the MANUFACTURERS' RECORD that he has made arrangements for the erection of a 20,000 spindle cotton mill. The entire plant will be new, and is to be built as soon as the Louisville & Nashville Railroad Co.'s branch to Prattville is completed. Local parties will furnish the bulk of the required capital.

An 11,000-Spindle Addition.

The Henderson (Ky.) Cotton Mills has decided to enlarge its plant considerably, and will at once commence work extending its buildings. It is proposed by Mr. Jas. E. Rankin, president, to expend about \$100,000, and increase the equipment of spindles from 25,000 to 36,000. While the improvements are being made the old machinery will also be thoroughly overhauled.

A Profitable Industry.

Some very significant facts were brought out at the recent meeting of the Jeans Manufacturers' Association at Knoxville, Tenn. Secretary Peyton N. Clarke stated that out of a business aggregating \$4,000,000 only \$1200 had been lost by bad debts, and that so great has been the demand for jeans goods that the manufacturers fear they will be unable to meet the spring trade. The constant drain has diminished supplies to an enormous extent.

Textile Notes.

THE Whittier Cotton Mills, of Lowell, Mass., which has for some months past been seeking a location for a Southern plant, had representatives in Carrollton, Ga., during the past week, who made a proposition to the citizens. The Whittier Company proposes to erect a cotton mill to cost \$194,000 if the citizens of Carrollton will take \$80,000 of said amount in stock or bonds, and a dividend of 6 per cent. will be guaranteed. The citizens have held a meeting and appointed a committee to solicit subscriptions to the mill, consisting of Messrs. C. H. Stewart, J. G. Blalock, L. C. Mandeville, W. H. Shaw and J. T. Brady.

ONE HUNDRED new looms and 3000 spindles will be added to the Caraleigh Cotton Mills at Raleigh, N. C.

ACCORDING to a dispatch from Concord, N. C., Mr. J. C. Lippard and associates will build a cotton mill at once.

THE Georgia Manufacturing Co., of Gainesville, Ga., is busily engaged in completing an order for 100,000 pounds of yarn from Nova Scotia.

IT is proposed to organize a \$100,000 cotton-mill company at Belton, Texas, and

over \$40,000 has been subscribed. The Board of Trade is managing the movement.

THE Red Springs (N. C.) Manufacturing Co. has been organized with Mr. J. L. McMillan as president, and it is proposed to build a cotton mill on the instalment plan.

SEVERAL cotton mills in South Carolina will send goods to Denmark for sale by the first steamship which leaves Charleston on the direct line between that city and Europe.

ABOUT \$20,000 has been subscribed to the proposed cotton-mill company at Ruthersfordton, N. C., and work on the plant will commence within thirty days. Mr. D. F. Morrow is interested.

A KNITTING MILL is to be established on the Big Hurricane river, near Tuscaloosa, Ala., and twenty-five machines will be put in at the start. Water-power will be utilized. The Hurricane Power Co. is interested.

THE owners of the Mammoth Spring Cotton Mills at Mammoth Spring, Ark., have decided to double the capacity of their plant and will shortly do so. The mill now employs 125 hands and produces over 1,500,000 yards of cloth per annum.

THE East Alabama Land Agency is pushing the movement for a new cotton mill at La Fayette, Ala., and has already subscriptions secured amounting to \$20,000. It is proposed to build a yarn mill of 5000 or 10,000 spindles, and estimates are now being secured.

THE secretary of the Walhalla Cotton Mills, of Walhalla, S. C., has called for 20 per cent. of the stock subscribed for, and as soon as the money is in work on the proposed \$75,000 mill will be commenced. John D. Verner and D. R. Robins are the leading stockholders.

PRELIMINARY surveys have been completed for the buildings for the new Massachusetts Cotton Mills (of Lowell) at Rome, Ga., and specifications for the buildings are now in the contractors' hands. The building will cost about \$125,000, and work on it will commence very shortly.

THE stockholders of the F. W. Poe Manufacturing Co., of Greenville, S. C., met last week, and the board of corporators reported that a majority of the stock of the company had been taken up by subscription and that 20 per cent. of the stock had been paid in. Directors were then elected as follows: F. W. Poe, Frank Hammond, N. C. Poe, L. W. Parker, of Greenville; W. M. Hagood, of Easley; D. E. Converse, of Spartanburg, and Col. J. B. E. Sloan, of Charleston. The directors hope to begin building at an early day.

THE Jeans Manufacturers' Association for the Southern and Middle States held its semi-annual session at Knoxville, Tenn., on the 6th inst. Eighteen mills were represented by delegates representing Tennessee, Kentucky, Mississippi, Missouri and Indiana, and an invested capital of \$9,000,000. These mills are prospering, and the stocks of goods on hand are reported as only nominal. There has been no suspension, and the mills are running to their full capacity. Henry W. Barrett, of Louisville, is president of the association.

THE Ascension Times is the name of a weekly paper which has made its appearance at Donaldsonville, La.

THE Radford Pipe & Foundry Co., of Radford, Va., has, it is reported, secured a contract to furnish the city of New Orleans with \$50,000 worth of iron pipe.

A REPORT from Portsmouth, Va., states that W. A. Thompson, a New Jersey capitalist, has purchased thirty-two acres of land at Pinner's Point, near the seaboard terminus of the Atlantic Coast Line. The property has 1600 feet front on the harbor, and is adapted for dock and warehouse purposes.

FINANCIAL NEWS.

New Financial Institutions.

Among the incorporators of the new Mechanics' Dime Savings Bank at Raleigh, N. C., are B. R. Lacy, D. M. King, H. W. Jackson and others.

A home insurance company with a capital stock of \$150,000 is being organized at Cynthiana, Ky. A similar movement is also on foot at Elberton, Ga.

The Verdin Investment Co. has been chartered at St. Louis, Mo., by Bernard M. Verdin, John N. Verdin and Eugene C. Tiltmann. The capital stock is \$50,000.

The Southeastern Building and Loan Association has been organized at Norfolk, Va., with James G. Gill, president; H. Hodges, vice-president, and R. W. Whitehurst, treasurer.

The Valdosta (Ga.) National Building and Loan Association has completed its organization with W. S. West, president; E. L. Moore, vice-president, and J. O. Varnedoe, secretary.

The Monroe Banking, Loan & Guaranty Co. will shortly commence business at Forsyth, Ga. J. M. Ponder will be president, and J. J. Carter, cashier. The capital stock will be about \$40,000.

Charter has been granted to the Equitable Building and Loan Association of Charleston, S. C., with Lee Loeb, P. H. Gadsden and J. S. Cohen as incorporators. The capital stock is \$150,000.

A charter has been granted to the German-American Building and Loan Association of Charleston, S. C., with Henry Haesloop, president, and Andrew A. Kroeg, secretary and treasurer.

The Bank of Summers, of Hinton, W. Va., has been incorporated by James H. Miller, J. H. Jordan, J. A. Parker and others. Mr. Miller will be president, and Mr. Jordan, cashier. The capital stock authorized is \$500,000.

The City National Bank is being organized at Terrell, Texas, to succeed the Harris Bank. Major Mucleroy will be president of the new bank, with W. P. Allen, cashier, and T. E. Corley, assistant cashier. The capital stock is to be \$100,000.

The Merchants & Mechanics' Building Fund Co. has been chartered at Richmond, Va., with J. I. Boswell, Jr., president; Charles E. Ashburner, Jr., vice-president, and Spencer Cornick, secretary and treasurer. The capital stock is to be not less than \$25,000 nor more than \$200,000.

New Bond and Stock Issues.

Bids will be received until March 25 by the board of revenue of Montgomery county, Montgomery, Ala., for the purchase of \$50,000 of 5 per cent. bonds due in 1935.

Application will be made by Monroe county, Fla., to the next session of the legislature for authority to issue \$350,000 in bonds for the purpose of building a road from Key West to Key Largo.

Augusta, Ga., has sold the issue of \$88,000 of 4½ per cent. 30-year bonds at a premium of \$1821.60 to Colden Rhind, of that city. The proceeds are to redeem eighty-eight bonds of \$1000 each bearing interest at 7 per cent.

Interest and Dividends.

The Baltimore Dry-Dock Co. has declared a dividend of 1½ per cent.

The Greenville (S. C.) News Co. has declared a semi-annual dividend of 3 per cent.

The First National Bank of Anniston, Ala., has declared a semi-annual dividend of 4 per cent.

An annual dividend of 10 per cent. has been declared by the Planters' Bank of Americus, Ga.

A semi-annual dividend of 4 per cent. has been declared by the Rapides Bank, Alexandria, La.

An extra dividend of 3 per cent. has been declared by the Shenandoah Valley National Bank of Winchester, Va.

A semi-annual dividend of 3 per cent. has been declared by the Central City Loan and Trust Association of Macon, Ga.

Financial Notes.

THE First National Bank of Orlando, Fla., has moved into a handsome new building.

DURING the past year the deposits of the Wilmington Savings & Trust Co., Wilmington, N. C., have increased from \$50,000 to \$135,000. It has about 4000 depositors.

THE Columbia Finance & Trust Co., of Louisville, Ky., is prepared to pay a 10 per cent. dividend to the depositors of the assigned New Farmers' Bank, of Mt. Sterling, Ky.

It is announced that the First National Bank of Buena Vista, Va., will change its location, removing to Lexington, Va. B. Estes Vaughan is the cashier. The bank has paid regular semi-annual dividends of 3 per cent. since July, 1893.

A MEETING of the stockholders of the Rockbridge Savings Bank, of Lexington, Va., will be held on March 30 to change the name of the institution to the Bank of Rockbridge. The bank commenced to operate a general banking business on February 20 last. J. K. Edmondson is president; W. C. Stuart, cashier, and T. M. Wade, teller. The capital stock is \$65,000.

REPORTS to the State auditor of Mississippi show that the State banks are in a splendid condition. Seventy-two banks make this showing: Sight exchange, \$3,242,461.80; cash on hand, \$1,726,427.45; capital, \$4,133,725; deposits, \$8,441,259.15. The cash in hand and immediately available is upwards of \$5,000,000, and with the brightening prospects a good portion of this will seek reinvestment within the State.

Philadelphia Money in Virginia.

A dispatch from Norfolk, Va., states that the Ocean View railroad and hotel property has passed into the hands of Charles H. and William Barrett, Jr., James Goodwin and F. B. Treat, of Philadelphia, who will expend \$250,000 in improving the hotel and changing the present railroad to a standard-gauge trolley line.

Messrs. H. L. Page, B. P. Loyall and Jas. E. Barry, of Norfolk, are also members of the company.

TRADE NOTES.

MESSRS. DALEY & MESSICK, Chester, Pa., have ordered one 60-inch worsted card from the M. A. Furbush & Son Machine Co., Philadelphia, Pa. The Hastings Wool Boot Co., Hastings, Mich., has just put in one 60 inch Furbush card.

LATE sales of the McNaul economic water-tube boilers were made to the Mount Gilead (Ohio) Electric Light & Power Co. and the Cardington (Ohio) Electric Light & Power Co. W. D. McNaul & Co., of Cleveland, Ohio, the manufacturers, also placed two boilers through the Corbett Mill & Machine Co., of Washington, D. C.

DURING the month of February the Roanoke Roofing & Metal Cornice Co., Roanoke, Va., furnished the galvanized iron work, etc., for a church at Hot Springs, Va.; skylight work for Dardanelle, Ark., and erected as well as furnished all the galvanized-iron cornice work, etc., for the public-school building erected at Bluefield, W. Va.

ORDERS for machinery outfits from boat-builders and others who are building their own hulls are keeping busy the Marine Iron Works, W. G. Nourse, manager, Chicago, Ill. The facilities of these works enable the prompt handling of orders which are hurried. Other work being turned out by this establishment includes two complete steam yachts.

A FACTOR of safety is brought out by the steam towing machine made by the American Ship Windlass Co., of Providence, R. I. This machine has an automatic arrangement which is described as almost human in its accuracy and adaptability to the purpose of towing. There is said to be no limit to its elasticity, and consequently it never comes to a solid pull or strain.

CONSTRUCTION DEPARTMENT.

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

*Means machinery is wanted, particulars of which will be found under the head of "Machinery Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ALABAMA.

Birmingham—Machine Works.—The Warrior Machine Works, a new plant, is now being equipped. Address care of Chas. J. Gehegan.

Birmingham—Foundry, etc.—The Union Foundry & Machine Co. has been organized and incorporated with \$5000 capital stock by P. F., A. H., A. R., A. D. and Caroline Walstrom.

Birmingham—Coal Mines.—The Sloss Iron & Steel Co. is opening five new coal mines at Brazil. **Decatur—Publishing.**—Jos. Lorzant will publish a newspaper.

Demervant (not a postoffice)—**Saw Mill.**—E. L. Holcombe, of South Alabama, has purchased 500 acres of timber lands at Demervant, on the Columbus & Western Railroad, twenty miles from Birmingham. Saw mills will be erected to cut the timber.

Florence—Flour Mill.—A 200-barrel flour mill will be erected. Address the Business League.

Florence—Furnace.—H. E. Ervin, receiver, will put the North Alabama furnace in blast at once.

Guntersville—Stave Mill.—W. P. Ward, of Greenville, Ind., was in Guntersville during the week contemplating building a stave mill.

Helena—Coal Mines.—The Helena Coal Mining Co. has reopened its mines and commenced shipments.

Henryellen—Coal Mine.—The Tennessee Coal, Iron & Railway Co. is opening a new seam of coal six feet thick.

La Fayette—Cotton Mill.—About \$20,000 has been subscribed to the proposed new cotton-mill company. A plant of not less than 5000 nor more than 10,000 spindles is contemplated. Address East Alabama Land Agency.*

Montevallo—Steel Bridge.—The county commissioners have ordered the construction of a steel bridge 100 feet long, 16-foot roadway, across Shoal creek.

Montgomery—Cotton Compress.—W. W. Bierce has contracted for the building of four 200-ton Taylor steam and hydraulic cotton compresses.

Prattville—Cotton Mill.—The report noted last week concerning a new cotton mill is correct. W. T. Northington states that he has arrangements for building a new 20,000-spindle plant as soon as the Louisville & Nashville Railroad Co.'s branch road to Prattville is completed; local parties will furnish most of the capital.

Sheffield—Furnace, etc.—Wade Allen and J. V. McGarry, of Florence, and J. V. Allen, of Sheffield, have leased the Hattie Ensley furnace and will organize a company to operate it.

Tuscaloosa—Knitting Mill.—A knitting mill equipped with twenty-five machines will be established, to operate by water-power. Address the Hurricane Power Co., care of J. J. Alston.*

Tuscaloosa—Coal Mines.—R. C. McCalla, Jr., and C. C. Baker, of Tuscaloosa; A. W. Haskell, of Birmingham, and R. H. Clark, of Mobile, have incorporated the Tidewater Coal Co. to develop mines on the Warrior river.

ARKANSAS.

Black Rock—Bed Factory.—The St. Joseph Folding Bed Co. will probably rebuild its burned factory.

Mammoth Spring—Cotton Mill.—The Mammoth Spring Cotton Mills will double the capacity of its plant, which is over 1,500,000 yards per annum; 125 hands are employed.

Paragould—Telephone Exchange.—E. S. Bray, T. B. Kitchens and Fred Hoffman have organized a company to operate a telephone exchange.

Pine Bluff—Stave Plant.—The St. Louis Stave & Lumber Co. will greatly enlarge its stave plant and add new machinery.

Prescott—Printing Plant.—J. J. Thomasson will rebuild his printing plant lately burned.

Washington—Broom Factory.—It is said that a company will start a broom factory.

FLORIDA.

Albion—Phosphate Mines.—The Albion Phosphate Mining & Manufacturing Co. will double the capacity of its mines.

Brookville—Handle and Spoke Works.—Law & Trammell contemplate putting handle and spoke machinery in their box plant.*

High Springs—Phosphate Lands.—Saml. Teague, of Ocala, representing H. B. Hollins & Co., of New York, has sold to Mr. Richie for a French syndicate tracts of phosphate lands in the High Springs section.

Jacksonville—Land Company.—Articles of incorporation have been filed by W. B. Owen, A. B. Campbell and B. F. Manier for the Jacksonville Suburban Land Co. with a capital stock of \$15,000. The corporation is organized for the purpose of acquiring real estate, etc.

Jacksonville—Brewery.—The Chas. Kaestner Co., of Chicago, Ill., contemplates building a brewery in Jacksonville, but the matter will not be fully settled until April 1. If it goes ahead the company will build and equip the entire plant.

Key West—Dry-docks.—Endeavors will be continued to locate a dry-dock. Address James A. Waddell.

Leesburg—Ice Plant.—The Leesburg Ice plant has reopened under the management of General Tillson.

Sanford—Tannery.—Brooks & Rohrer are adding vats to their tannery.

Tallahassee—Cotton Mill.—The Tallahassee Factory will be greatly enlarged, so report says.

Tampa—Electric-light Plant.—E. W. Henck, of Longwood, has obtained electric light franchise from the city of Tampa.

Tampa—Ice Plant.—R. Mugge will build a 25-ton ice plant at once; machinery ordered.

GEORGIA.

Americus—Electric-light Plant.—The Americus Illuminating & Power Co. will put in a new 100-arc-light dynamo of 1200 candle power; machine bought.

Athens—Knitting Mill.—The proposed knitting company, noted last week, will be reorganized with \$10,000 capital and establish plant at once to employ thirty hands. J. H. Dotson and W. R. Lipscomb are at the head of the company.

Athens—Bobbin Factory.—C. W. Baldwin will start a bobbin factory.*

Atlanta—Terra-cotta Plant.—The Southern Terra Cotta Works has been organized into a stock company with \$50,000 cash capital; Samuel Young, president; J. R. Collins, vice-president, and A. L. Beck, secretary-manager.

Atlanta—Water-power, etc.—The new company fully reported recently as to build a large electric and water-power plant, etc., has been incorporated as the Atlanta Electric Power Co. with a capital stock of \$100,000 and privilege of increasing to \$2,000,000. The incorporators are A. E. Thornton, of Atlanta; J. H. Vail, of New York; Hugh R. Garden, of New York; Evan P. Howell, of Atlanta, and several others.

Atlanta—Trunk Factory.—The H. W. Rountree Trunk & Bag Co., of Richmond, Va., will establish a branch factory and sample room in Atlanta.

Augusta—Iron Works, etc.—The Lombard Iron Works & Supply Co. has been organized and purchased the C. F. Lombard and Pendleton Iron Works plants.

Blue Ridge—Tobacco Factory.—J. V. Allen, of Ivy Log, contemplates starting tobacco factory in Blue Ridge.

Carrollton—Cotton Mill.—The Whittier Cotton Mills, of Lowell, Mass., has made a proposition to erect a \$194,000 cotton mill in Carrollton. A committee has been appointed to endeavor to meet the terms of said proposition. For information address C. H. Stewart.

Cleveland—Gold-mining.—J. H. Westmoreland, of Cleveland, and J. R. Lumsden, of Santee, will develop gold mines.

Dalton—Tobacco Factory.—The Herron-Thomas Tobacco Co. will build another factory, to consist of two-and-a-half-story building 40x60 feet, equipped with machinery.

Dublin—Compress, etc.—A company has been organized to erect a cotton compress and warehouse.

Forsyth—Telephones.—A telephone company is being organized.

Griffin—Cotton Mill.—It is reported that the Kincaid Manufacturing Co. will double its present mill (6410 spindles and 200 looms).

Milledgeville—Telephone System.—Wm. West has obtained franchise for a telephone system.

Montezuma—Wells.—A. H. Werten, of Wadley, has received contract at \$900 to bore two artesian wells.

Parks—Gold-mining.—J. P. Thurmond and S. G. Castleberry are developing gold deposits.

Ringgold—Manufacturing.—The Ringgold Novelty & Manufacturing Co. has been formed with F. M. Powell, president, and W. Trox Bankston, secretary.

Rome—Filter Plant.—The city contemplates expending \$8000 for a water-filter plant. Address the mayor.

Savannah—Woodenware Factory.—A \$75,000 stock company is proposed to manufacture butter-dishes, berry baskets, fruit and vegetable packages. J. G. Brinson can be addressed.*

Stanton—Saw Mill.—Allen, Alexander & Mayson have lately commenced to rebuild their saw mill.

KENTUCKY.

Ashland—Furniture Factory.—The Standard Planing Mill & Building Co. is enlarging its plant and putting in machinery for manufacturing tobacco.

Bowling Green—Electric Plant.—A power plant for electric railway will be built; will include 150 horse-power boiler and engine, an 80-kilowatt generator, etc. Address secretary Commercial Club.

Henderson—Cotton Mill.—The Henderson Cotton Mills will expend \$100,000 to enlarge its plant and increase machinery from 25,000 to 36,000 spindles; work to commence at once. Jas. E. Rankin is president.

Lexington—Engine Works.—It is reported that Charles Roth & Bro., of Indianapolis, Ind., will build engine works at Lexington.

Louisville—Distillery.—J. P. Wathen & Bro. will rebuild their \$70,000 distillery, noted as burned.

Maysville—Ice and Cold-storage Plant.—Amos Shinkle & Co. will erect an ice and cold-storage plant of twenty-five tons daily capacity, work to commence at once. C. B. Pearce, Jr., and I. N. Foster are interested.

Maysville—Pulley Factory.—J. T. Long has a plan for the establishment of a pulley factory.

Normal—Coal Mines.—John Handy and associates have purchased 550 acres of coal land on Keyes creek, and will develop mines, construct branch railroad, develop timber lands, etc.

Owensboro—Coal Mine.—J. W. Stout and Robert E. Overton have purchased H. G. Simmons's coal mine near Owensboro and will operate it.

LOUISIANA.

Alexandria—Telephone System.—The Alexandria Telephone Co., Limited, with a capital stock of \$2500, has been organized to construct system. Thomas Clements is president; J. C. Ryan, vice-president; L. A. Stafford, secretary and treasurer.

McDonoughville—Condensed-milk Plant, etc.—The McDonoughville Condensing Co., Limited, has been formed recently to manufacture condensed milk, can fruits, etc. Jean Dufan is president; Louis Marechal, vice-president, and Louis C. Lacoste, secretary; capital stock \$10,000.

Monroe—Telephone System.—W. B. Reily is forming a telephone company.

New Orleans.—A dispatch from New Orleans states that sugar planters will organize a company to build a refinery in opposition to the Sugar Trust.

New Orleans—Sash and Door Factory.—The American Manufacturing Co. has obtained permit to operate a sash, door and blind factory.

Shreveport—Telephone System.—The Citizens' Co-operative Telephone Association has been organized to establish the system lately noted.*

MARYLAND.

Baltimore—Machine Works.—The Courtland Machine Co., for the manufacture of machinery, etc., has been incorporated by John W. D. Maier, John N. Vieweg, Dall Worthington, Joseph W. Hazell and Ferdinand C. Dugan, with a capital stock of \$10,000.

Baltimore—Rolling Mill.—A puddling furnace, crusher and set of rolls will be erected in the blacksmith department of the B. & O. R. Co.'s Mt. Clare shops, giving employment to thirty or forty men. The machinery will be removed from Cumberland to Mt. Clare.

Conowingo—Power Plant.—The Susquehanna River Electric Co., lately noted, has purchased the plant of the Susquehanna Water Power & Paper Co., near Conowingo. The plant carries with it about one and a-half miles of water front on both sides of the river between Conowingo and Ocatara creeks. The company will now

control about six and a-half miles of water front on the Susquehanna river, having a fall of 100 feet and affording excellent power to generate electricity. The buildings of the paper company will be converted into an electric plant at once. All the present machinery will be taken out and the interior remodeled into a power-house. The promoters of the electric company say they expect to have their plant in operation within a year; J. W. Marsh, of Pittsburg, Pa., president.

Curtis Bay (P. O. Baltimore)—Packing Plant.—The Martin Wagner Co. has purchased site at Curtis Bay, and will remove its extensive packing plant and tin-can factory.

Curtis Bay (P. O. Baltimore)—Sugar Refinery.—The Baltimore Sugar Refining Co. will at once resume work to rebuild its sugar refinery at Curtis Bay. This plant was badly damaged by fire in 1893, and last fall plans for rebuilding it were prepared and contracts for some of the machinery were placed. W. W. Spence, of Baltimore, is president.

East New Market—Creamery.—A company has been organized to establish a large creamery. Address R. H. Stevens, president.

Easton—Telephone Exchange.—M. M. Higgins, A. G. Pasault, J. S. Griffith and J. F. Bateman will organize a company to establish a telephone system.*

Hyattsville—Water Works.—The Citizens' Improvement Association is endeavoring to raise \$15,000 to build water works.

Kensington—Sewerage.—A committee has been appointed to inquire and report on a pipe line to drain sewage. Address the mayor.

Washington, D. C.—Telephone System.—A company is being organized to construct a new telephone system. Address J. E. Keelyn for information.

Williamsport—Bridge.—The Potomac Bridge Co., capital stock \$40,000, has been incorporated to build the bridge recently noted; address care of Victor Cushman.

MISSISSIPPI.

Biloxi—Bridge.—The proposed bridge will be built some time this year. Address D. M. Mayers.

Duck Hill—Iron Mine.—D. D. Wilkins and associates have options on 40,000 acres of land, on which they will open iron mines, etc.

Pass Christian—Lumber Mill.—W. W. Lambert, of Glade, is not building a saw mill, as was reported last week, but the Purvis Lumber Co. has completed plant, which is now in operation.

Scranton—Fire Protection.—The city contemplates issuing bonds for laying plugs and mains for fire protection. Address the mayor.

Scranton—Machine Shop.—T. C. Gatti is rebuilding his machine shop lately burned.

Vicksburg—Manufacturing.—C. W. Wilmerath, of Chicago, and others will locate a \$35,000 factory at Vicksburg.

MISSOURI.

Farmington—Lead Company.—The Flat River Lead Co., capital \$350,000, has been incorporated by William R. Taylor, R. P. Taylor, Mary E. Taylor, Birdie T. Dryden, John Dryden and William R. Taylor, Jr.

Humansville—Water Works.—Same talk of water works has been reported. Address W. Q. Paxton.

Kansas City—Gas Plant.—R. M. Snyder, C. J. White, George P. Olmstead, J. M. Lowe and J. R. McIlvried have obtained franchise to build a gas plant, and will expend from \$500,000 to \$1,100,000 upon same. Work is to commence at once.

Kansas City—Bridge Works.—The Runyon Bridge Construction Co. has been incorporated with a capital stock of \$20,000 by W. Rider, L. S. Cherry, C. S. Lewis and others.

Kansas City—Candy and Cracker Factory.—The Mount Cracker & Candy Co. is rebuilding its factory at a cost of \$6000.

St. Louis—Buggy Company.—The Jos. W. Moon Buggy Co. has been incorporated with a full-paid capital stock of \$50,000 by Jos. W. Moon, Theo. Tyrell, Geo. H. Schelp and Alfred F. Moberly.

St. Louis—Medicine Company.—The Brownfield Medicine Co., capital stock \$2000, has been incorporated by W. W. Brownfield, Frank Watkins and D. L. Brownfield.

St. Louis—Mercantile.—S. D. Williams and others have incorporated the Williams Hardware Co. with a capital stock of \$6000.

St. Louis—Electric Plant.—The St. Louis County Electric Light & Power Co. has obtained franchise for erection of plant. Address care of M. B. Greensfelder.

St. Louis—Glass Company.—The Read-Annan Glass & Decorating Co., capital \$7500, has been incorporated by C. W. Read, S. P. Annan, R. S. Chase and others.

St. Louis—Refinery.—J. B. Legg writes that he has just closed contract for the erection of a heavy brick building of mill construction for the St. Louis Syrup Refining Co.*

Westport-Sewers.—Proposals will be received until March 21 for constructing about 9000 feet of 12 and 15-inch sewers; F. T. Roberts, city engineer.

NORTH CAROLINA.

Aberdeen-Lumber Plant.—Duke & Blanchard will rebuild their recently burned saw and planing mills.

Aberdeen-Shingle Mill.—W. C. Mallome has built a lath and shingle mill.

Aberdeen-Shingle Mill.—P. A. Markham will rebuild his shingle mill lately burned.

Bowman's Bluff-Starch Factory.—A starch factory is contemplated by Walter Hurst.

Charlotte-Cotton-mill-supply Works.—The Lazelle Reed & Harness Co. has been organized with a capital stock of \$10,000, and H. C. Lazelle is president and treasurer; E. A. Smith, vice president, and R. M. Miller, secretary. The company will operate Lazelle reed and harness factory, lately noted.

Concord-Cotton Mill.—A dispatch states that J. C. Lippard and associates have completed surveys, and will commence erecting a cotton mill. Mr. Lippard was interested in such a project several months ago, and the report is probably correct.

Greensboro.—The Safety Building Co., incorporated with a capital stock of \$10,000, will erect a large brick building for manufacturing purposes; R. G. Vaughn, secretary.

Greensboro-Veneer Works.—The Standard Manufacturing Co. will put in machinery for manufacturing veneered packages for truck shipment.

Mt. Holly-Improvements.—The city will hold an election May 1 to consider issuing bonds for improvements. Address the mayor.

Raleigh-Cotton Mill.—The Caraleigh Cotton Mills will put in 3000 more spindles and 100 more looms.

Red Springs-Cotton Mill.—The Red Springs Manufacturing Co. has been organized to build a cotton mill on the instalment plan; J. L. McMillan, secretary.

Rutherfordton-Cotton Mill.—The proposed cotton-mill company will soon organize; over \$20,000 already subscribed. Work will commence within thirty days. Address D. F. Morrow.

Wilmington-Laundry.—L. B. Pennington has leased the Empire Steam Laundry; will put in new machinery and operate it.

SOUTH CAROLINA.

Gaffney City-Monazite Mines.—F. E. Schumpert and W. R. Gilmore have leased monazite mines.

Greenville-Cotton Mill.—The F. W. Poe Manufacturing Co., recently noted as chartered, has organized with directors as follows: F. W. Poe, Frank Hammond, N. C. Poe, L. W. Parker and others. It is expected that work will soon be commenced on the mill.

Laurens-Telephone System.—A system is to be installed.

Walhalla-Cotton Mill.—The Walhalla Cotton Mills has called for payments of 20 per cent. on all stock subscribed for, and intends to commence work on its plant. Address care of John D. Verner.

TENNESSEE.

Blountville-Creamery.—A company is being organized to erect a creamery. Address James J. White.

Bristol-Gas and Electric Plant.—S. C. Hurt & Son, of Lynchburg, Va., have purchased the Bristol-Goodson gas and electric plant for \$20,000; will make improvements and operate it.

Chattanooga-Telephone System.—A new telephone system is contemplated in Chattanooga by the People's Telephone & Telegraph Co., of Knoxville; J. C. Duncan, general manager.

Dyersburg-Planing Mill.—The Ford-Phleger Lumber Co. will put in a planing mill.

Jackson-Electric-light Plant.—The city contemplates building an electric-light plant. Address the mayor.

McMinnville-Telephone System.—The Tennessee Woolen Mills will install a telephone system.

Memphis-Factory.—E. Levy will erect a two-story iron-lath factory building to cost \$300.

Memphis-Canning Factory.—C. T. O'Farrell has purchased the Forrest City (Ark.) Cannery, and will remove same to Memphis.

Morristown-Water Works.—The city is preparing to install a system of water works. Address R. F. Taylor.

Rogersville-Woodworking Factory.—Henry Hale is improving his woodworking factory.

TEXAS.

Austin-Churn and Pump Works, etc.—The Franklin Manufacturing Co. has been organized with a paid-up capital of \$50,000 to manufacture patent aerating churns, hollow-piston pumps, etc. E. A. Franklin is president; W. C. Lott, vice-president, and John Steele, of Georgetown, secretary.

Belton-Cotton Mill.—The Board of Trade is organizing a \$100,000 cotton-mill company, and has already obtained subscriptions for \$40,000.

Belton-Cannery.—The Belton Canning Co., lately noted, will erect its plant at once, and pro-

poses to have a capacity of 10,000 cans daily. Fred E. Hund will have charge of the factory.

Galveston-Brewery.—It is reported that the Galveston Brewing Co. will be organized with a capital stock of \$400,000 for the purpose of erecting a brewery of 100,000 barrels yearly capacity. Adolphus Busch, of St. Louis, Mo., is said to be interested.

Goliad-Electric-light and Water Works.—W. E. Campbell and John Cole are soliciting subscriptions for a water and electric-light company.

Gorman-Mercantile.—P. H. Miller and others have incorporated the Farmers & Merchants' Trading Co. with a capital stock of \$10,000.

Houston-Packing Plant.—It is said that H. B. W. Russell, of Liverpool, England, and associates will furnish capital for a large packery to be built at Houston or Galveston. Address Geo. M. Barnum, of Houston.

San Antonio-Brick and Tile Works.—Chartered, the Oppenheimer Brick & Tile Co., of San Antonio, with a capital stock of \$50,000, by Daniel, Anton, Jessie D. and Henry Oppenheimer and Emil Callen, of San Antonio; Lewis Osterweis, of New Haven, Conn., and Oswald Kutsche, of Chicago.

Texas-Cotton Compress.—A special dispatch from Reading, Pa., states that the Scott Works of the Reading Iron Co. has received an order for the construction of two 95 inch cotton compresses to be erected in Texas. Each machine will weigh 500,000 pounds and cost \$50,000.

Texas.—W. T. Campbell, of Lampasas, and W. P. Prestridge, of San Antonio, are prospecting throughout Texas for suitable sight for a wool-scouring mill of 2,500,000 pounds capacity per annum.

VIRGINIA.

Alexandria-Mineral-water Factory.—Jos. S. Beach & Brawner have started a mineral-water factory.

Bedford City-Carriage Factory.—The Salem (Va.) Carriage Co. will start a factory in Bedford City.

Charlottesville.—The Belmont Construction Co. has been chartered with H. G. Wills as president; W. W. Keenan, secretary and treasurer; directors, J. J. Holliday, J. E. Harrison, G. E. Head and J. L. Walters; capital stock \$5000.

Charlottesville-Land, Gas Plant, etc.—The Jefferson Park Co. has been incorporated with a capital stock of \$50,000 and privilege of dealing in land, erecting electric-light or gas plant, etc. T. O. Troy is president; F. B. Peyton, secretary; George Perkins, M. O. Troy and D. Harmon, directors.

Chase City-Furniture and Wagon Factory.—A plant for manufacturing wagons and furniture will be built. Geo. B. Finch, of Boynton, W. Va., and L. Gregory and E. S. Emory, of Chase City, have incorporated the Chase City Manufacturing Co. with a capital stock of \$25,000. Lucius Gregory is president; Walter V. Gregory, secretary treasurer, and E. E. Emory, manager.

Danville-Constructing Company.—The Ordway Construction Co. has been formed with a maximum capital stock of \$100,000, its purpose being to erect dams and mill buildings, bridges, masonry, construct railroads, etc. Jas. A. Ordway is president; Anthony Kocher, secretary-treasurer, and S. S. Ordway, superintendent and general manager; the directors are the above and R. G. Rand and E. W. Hobbs.

Lynchburg-Electric-light Plant.—The city has definitely decided to build its own electric-light plant and bonds for \$60,000 will be issued. Address the mayor.

Norfolk-Flour Mill.—The Daisy Roller Mills have been completed and commenced operations; daily capacity 1200 barrels.

Ocean View-Electric Plant.—Chas. H. Barrett, F. H. Treat and others, of Philadelphia, Pa., will build a power plant for electric railway at a cost of \$80,000.

Petersburg-Iron Works.—The Petersburg Iron Works Co. is putting in two new and larger cupolas.

Petersburg-Telephone.—The Mutual Telephone Co., which has been forming for some time past, has fully organized with W. B. McIlwaine, president; E. A. Hartley, vice-president, and R. D. Gilliam, secretary treasurer; charter has been applied for; capital stock to be \$10,000.

WEST VIRGINIA.

Belleville-Flour Mill.—The Belleville Mill Co. is improving its plant.

Ceredo-Water Works.—The city is desirous of granting franchise for water works. Address C. F. Millender, secretary.

Salem-Water Works.—Bonds will be issued for water supply. Address J. H. Benedum, recorder.

Weston-Water Works.—Plans and specifications ready for the new water works noted last week. Address E. H. Browne, mayor.

Winifrede-Mining Plant.—The Winifrede Coal Co. is installing an electrical mining plant.

BURNED.

Alexander, Texas.—R. E. Langston's cotton gin.

Crockett, Texas.—M. Baker's cotton gin.

Frederick, Md.—Bush & Baker's cigar factory; loss \$2000.

King George, Va.—The county jail; loss \$2500.

Louisville, Ky.—J. B. Wathen & Bro.'s distillery; loss \$70,000.

Mansfield, Tenn.—W. W. Ezell's tobacco factory.

Martí City, Fla.—Jose Morales & Co.'s cigar factory; loss \$40,000.

Murfreesboro, Ark.—Pike county courthouse.

Shelbyville, Tenn.—The Hight House; loss \$4000.

Shelbyville, Tenn.—The Height Hotel; loss \$7500.

Rosa, La.—L. S. Havard & Co.'s cotton gin.

BUILDING NOTES.

Alexandria, Va.—Courthouse.—John E. Herrell, president of the National Capital Bank of Washington, D. C., has offered to donate the land and erect at his own expense a \$20,000 courthouse for Alexandria county, provided he is given the right to select the location.

Alexandria, Va.—Thomas Fannon has prepared plans for a three-story building, of brick, iron and rolled glass, first floor front for storeroom, furnace, marble lavatories, water-closets, etc., to cost \$10,000.

Algiers, La.—School.—A \$10,000 schoolhouse is to be built. Address E. B. Kruttschnitt, president of school board, New Orleans.

Austin, Texas—Theatre.—It has been decided that the Orr Hotel, noted last week, will be remodeled into a theatre. Plans are being prepared by John Andrewath. Iron-trussed roof 92x103 feet, stamped metal ceilings and other supplies for a theatre are wanted.

Baltimore, Md.—Warehouse.—A. Booth & Co. will build a two-story storage warehouse, 30x120 feet.

Baltimore, Md.—Dwellings.—Nelson C. Showacre will erect fourteen dwellings to cost \$15,000 each.

Baltimore, Md.—Depot.—Plans are now being prepared for the Baltimore Belt Railroad's proposed depot. Address Baldwin & Fennington, architects.

Baltimore, Md.—Dwellings.—Frank O. Singer will erect three three story dwellings.

Camden, Ark.—Church.—The M. E. Church will erect a new edifice to cost \$5000; will want heating apparatus, seats, pulpit, altar railing, etc. Address W. K. Rieving, chairman building committee.

Chapel Hill, N. C.—Association Building.—Plans will be prepared for the \$20,000 Y. M. C. A. building, noted last week, to be three stories high, brownstone and granite trimmings, iron and slate roof, hardwood and oil finish; lower floor to have iron and plate glass front for st. rooms; second floor to be used for offices, etc.; to have furnace heat, electric light, marble lavatories, water-closets, fire-escape and tower clock with bell. Address J. M. White, secretary.

Charleston, S. C.—Hall.—Charles Prioleau, Arthur S. Jones, Wm. Henry Thomas and E. B. Hollings, of Charleston, have incorporated the Pythian Hall Co. with a capital stock of \$15,000.

Charleston, W. Va.—Society Building.—H. L. Rowe, Lexington, Ky., has prepared plans for a building for the Masonic order at Charleston, to be 75x127 feet in size, four stories, stone foundation and trimmings, tin and slate roof, galvanized-iron cornices and skylights, architectural iron-work, iron beams, lodge furniture, safes, vaults, wood and iron mantels, plate and stained glass, blinds, electric bells and lighting, hydraulic passenger and freight elevator, steam heating, radiators, bathroom outfit, plumbing, washstands, water-closet fixtures; cost \$45,000.

Chattanooga, Tenn.—Church.—Geo. O. Revely & J. E. Parrish, of Radford, Va., have obtained contract to rebuild the First Baptist Church at Chattanooga, recently burned; will cost over \$5000.

Chattanooga, Tenn.—School.—Sealed bids will be opened March 18 for erection of school building in Highland Park. Address H. L. McFarland.

Dallas, Texas—Auditorium.—T. F. McEnnis suggests forming company to build a \$150,000 auditorium.

Danville, Va.—Dwelling.—Geo. W. Robertson will erect a dwelling; plans prepared by James A. Ordway.

Denton, Md.—Courthouse.—Contract for erecting the new courthouse has been let to Slemmons & Lankford, of Salisbury, at \$17,383.

Dublin, Ga.—Warehouse.—A company has been organized to build a warehouse and compress.

Eastman, Ga.—Schools.—The citizens have voted the \$10,000 bond issue for schools. Address the mayor.

Eastman, Ga.—Schools.—The city has voted to issue bonds for school buildings. Address the mayor.

Frankfort, Ky.—Stable.—Oberwarth & Wade have prepared plans for a livery stable, to be 50x120 feet in size, two stories, iron beams and window guards, gas fixtures, stable fittings; cost \$4000.

Ghent (P. O. Norfolk), Va.—Hotel.—J. P. Andre

Mottu & Co will receive competitive plans for erecting a \$150,000 hotel lately reported, to be built of pressed brick, brownstone front, five stories, slate and iron roof and ornamental slate-covered tower; steam heat, electric and gaslight fixtures, ornamental metal staircase, two electric passenger and freight elevators, sanitary water-closets, marble lavatories, French baths on each floor, fire extinguisher and escapes, hardwood and beveled-glass bar and office fixtures, and electric-light and power plant, tiled fireplaces and steam-laundry apparatus will be needed.

Gillett, Ark.—Church.—The Methodist Episcopal Church South has decided to erect a large brick church. Address the pastor.

Granbury, Texas—Church.—The church lately mentioned has been let to contract. Opera chairs will be purchased; Rev. C. C. McCormell, pastor.

Houston, Texas—Business Building.—Contract for erecting a three-story brick building for Hugh Waddell has been let to Stadler & Lucas.

Houston, Texas—Dwellings.—G. S. Boyce has completed plans for residence for James Allment to cost \$3600. R. D. Steele has prepared plans for Robt. E. Maher's new dwelling.

Houston, Texas—Opera-house.—Plans by Frank Cox, of New Orleans, La., have been accepted for the new \$26,000 opera-house recently noted.

Houston, Texas—Flat.—L. L. Levy will build a four-story brick flat, to have electric elevators and other modern conveniences. Plans and specifications are now being prepared.

Kansas City, Mo.—Dwellings, etc.—Hackney & Smith have prepared plans for a residence for Milton Welch, to have galvanized-iron cornices, wood mantels, plate, stained and beveled glass, speaking tubes, electric lighting, hot-water heating, radiators bathroom outfit, etc.; cost \$10,000. Same architects have plans for residence for Frank Simpson to be of pressed and ornamental brick and frame, with stone foundation, wood mantels, plate and beveled glass, blinds, electric bells, furnace, bathroom outfit, etc.; cost \$3000. Guinotte & Edwards have prepared plans for a business block for George Sheldley, to be 140x31 feet in size, two stories, built of pressed brick, with stone foundation, have gravel roof, prismatic sidewalk lights, iron columns, American tiling, hardwood finish, plate and beveled glass, electric lighting, steam heating; cost \$15,000.

Kansas City, Mo.—Hotel, etc.—The Genesee Street Improvement Co., incorporated with \$120,000 capital, will erect a building for hotel, etc. Address care of Col. C. F. Morse. J. C. Rogers has permit to build a frame building veneered with brick, to cost \$72,000.

Kansas City, Mo.—Theatre, etc.—George Mathews has completed plans for a summer theatre to cost \$8000. Walter P. Neff will build a \$9000 residence, and Milton Welch a \$10,000 dwelling.

Kansas City, Mo.—Workhouse.—Wallace Love has completed plans for the new workhouse; estimated cost to be \$15,000 without steel cells and \$22,000 fully equipped.

Kansas City, Mo.—School.—A new high school building will probably be built. Address the board of education.

Knoxville, Tenn.—Business-houses.—Davis, Chumble & Co. and Powers, Little & Co. will erect two five-story buildings to cost \$35,000.

Knoxville, Tenn.—W. C. Chamberlin & Co. have drawn plans for remodeling the McGhee Building to cost \$5000.

Lake City, Fla.—The Masonic fraternity will build a three-story brick block 50x105 feet.

Lenoir City, Tenn.—Stores.—Jas. W. Thompson has prepared plans for five storeroom buildings for Dr. W. T. Foute, each to have composition and tin roof, iron columns, electric bells, grates, etc., and cost \$10,000.

Louisville, Ky.—Dwellings, etc.—Boyle & Struby have prepared plans for a residence for Mrs. E. Stein, to be pressed brick, stone foundation and trimmings, iron window guards, wood mantels, plate and stained glass, electric bells, gas fixtures, furnace, ventilators, bathroom outfit, etc., to cost \$6000. C. S. Kellar has prepared plans for a residence, to be built of pressed brick, stone foundation and trimmings, electric bells, gas fixtures, grates, bathroom outfit, plumbing, washstands, water-closet fixtures, etc., to cost \$4000. Fred Erhart has prepared plans for a residence, to be built of frame and have iron mantels, plate and stained glass, electric bells, etc., and cost \$3000.

Lynchburg, Va.—Church.—E. G. Frye will prepare plans for a church building to cost \$50.

Mobile, Ala.—Hospital.—It is stated that a \$60,000 Episcopal hospital will be built. Address Bishop Wilmer.

Nashville, Tenn.—Hall.—The Knights of Pythias have let contracts for the erection of a hall building.

New Orleans, La.—Armory.—The Fourth Battalion Louisiana State National Guard will build a new armory, for which S. G. del Isle has made preliminary drawings. The structure will be enlarged and include theatre, etc.

New Orleans, La.—Church.—Contract has been let to O'Neill & Koch at \$21,300 for the erection of

a Roman Catholic church after plans by James Freret.

New Orleans, La.—Clubhouse.—The Pickwick Club has purchased site for a handsome clubhouse.

Ocean View, Va.—Hotel.—The Ocean View Hotel improvements, noted last week, will cost about \$250,000. Chas. H. Barrett, F. H. Treat and others, of Philadelphia, Pa., have purchased the hotel.

Ocean View, Va.—Hotel.—The Ocean View Hotel will be remodeled and enlarged by fifty rooms.

Owings Mills, Md.—A \$5000 building will be erected by the Home for Feeble-Minded Children. Address the superintendent.

Paris, Texas.—Courthouse.—Plans are wanted for the \$50,000 courthouse already noted; will select plans on April 8. Address J. C. Hunt, county clerk.

Sedalia, Mo.—Depot.—The Missouri, Kansas & Texas Railroad is about to commence work on its new \$30,000 depot.

Seneca, Mo.—Hotel, etc.—Lee Mathews, of Mo-
nett, is preparing plans for a hotel, salon and
billiard hall to be erected at Seneca for M. Hall,
to be 72x100 feet in size, two stories, brick, stone
foundation, tin and gravel roof, galvanized-iron
cornice, store fronts, iron columns, pine finish,
plate and cathedral glass; contracts will not be
let before the middle of April.

Statesville, N. C.—Opera-house.—S. A. Sharpe
and associates will rebuild the Statesville opera-
house.

St. Joseph, Mo.—Church.—The First Baptist
Church will erect an edifice to cost \$30,000.

St. Louis, Mo.—Dwellings.—Building permits
have been issued to A. B. Brauckman for six ad-
joining dwellings to cost \$14,000; J. F. Obernier,
a dwelling to cost \$7,000; H. Hannibal, five flats to
cost \$8,900; St. Casimer parish, parsonage to cost
\$5,000.

St. Louis, Mo.—School.—New schools are pro-
posed, one to cost \$30,000, besides \$8000 for heat-
ing plant; one to cost \$35,000, besides \$6000 for
heating plant, and one to cost \$18,000, besides
\$6000 for heating plant. Plans have been sub-
mitted for a school to cost \$24,000, and for en-
largements to cost \$16,000 and \$24,000. Address
building committee of school board.

St. Louis, Mo.—Dwellings.—The Garden City
Realty Co. has permit to build three dwellings to
cost \$33,000.

St. Louis, Mo.—Residence.—M. C. Marshall will
build a \$7000 dwelling.

Statesboro, Ga.—Hotel.—The hotel noted last
week is in Georgia, and not North Carolina, as
stated. Address Dr. M. M. Holland.

St. Joseph, Mo.—Depot.—Plans have been ac-
cepted as prepared by E. J. Eckle for the St.
Joseph Union Depot Co.'s new depot, to be 400
feet long and cost \$15,000.

St. Louis, Mo.—Dwellings.—John J. Miltenberger
will erect eleven eight-room dwellings to cost
\$38,500, and two 11-room dwellings to cost \$16,000.

St. Louis, Mo.—Theatre.—A theatre will be built.
Address John D. Hopkins, 3433 Olive street.

Tampa, Fla.—Bank Building.—John Trice will
build a bank building.

Tampa, Fla.—Dwelling.—John Trice will build an
\$8000 residence.

Washington, D. C.—Dwellings.—Foster & Foster
have permit to erect two dwellings to cost \$7,000,
and Mrs. Anna Braher one dwelling to cost \$5,500.

Washington, D. C.—Dwelling.—W. H. Davis has
permit to build a \$4000 dwelling.

Washington, D. C.—Engine-house, etc.—A \$12,500
engine-house and fourteen new schoolhouses will
be built. Address Building Inspector Brady.

Washington, D. C.—Residence.—J. B. Nelson has
permit to erect a brick dwelling at a cost of
\$18,000.

Washington, D. C.—C. M. Emrich will expend
\$5000 repairing 451 Pennsylvania avenue N. W.

Wilmington, N. C.—Reformatory.—The sum of
\$25,000 will be appropriated by the State to erect
buildings for reformatory, probably near Wil-
mington. Address secretary of state, Raleigh.

RAILROAD CONSTRUCTION.

Railroads.

Alexandria, La.—President Watkins and Chief
Engineer Philbrick, of the Kansas City, Watkins
& Gulf, have been examining the country between
Alexandria and Natchez, Miss., with a view of
extending the road from Alexandria to Natchez.
A bridge across the Red river will be needed.
The offices are at Lake Charles.

Beaumont, Texas.—Tracklaying has begun on
the extension of the Gulf, Beaumont & Kansas
City road north from Buna, Texas, and eleven
miles have thus far been completed. John H.
Kirby is manager.

Birmingham, Ala.—The Birmingham Railway &
Electric Co. has purchased new motors and made
several improvements to its line. J. B. McClary
is superintendent.

Bristol, Tenn.—A bill has been introduced in the

North Carolina legislature to incorporate the
Western Carolina Railway Co., which is pro-
moting a road from Bristol, Tenn., to the South
Carolina line.

Cambridge, Md.—Business men, it is said, will
subscribe for \$75,000 worth of stock to build the
railroad proposed from Courtney to Fox creek, in
Dorchester county.

Cape Charles, Va.—The New York, Philadelphia
& Norfolk is placing several hundred tons of
steel rails on its line and rebalasting sections of
the roadbed.

Curve, Va.—The railroad from Curve to Ripple-
mead is to be called the Big Stony Creek road.
Vaughn, Luck & Co., A. J. Banks and J. B. San-
ders & Co., all of Roanoke, are constructing the
line, which is to be twelve miles in length. The
Mountain Lake Lumber Co. will operate it.

Cuyler, Ga.—It is reported that the Cuyler &
Woodburn Company is about to begin the exten-
sion of its road from Woodburn to Statesboro,
eighteen miles.

Gillett, Ark.—The Stuttgart & Arkansas River
Railroad Co. is securing ties for the completion
of its four mile extension into Gillett. T. H.
Leslie, at Gillett, may be addressed.

Gillett, Ark.—The Pine Bluff & Eastern, it is
stated, is to be extended to Gillett this year. It
is twenty three miles long, extending at present
from Rob Roy to English, Ark. T. H. Leslie, at
Gillett, may be addressed.

Granger, Texas.—The Trinity, Cameron & West-
ern, it is stated, has given the Illinois Steel Co. a
contract to furnish 150 miles of steel rails, and to
the Hopkins Construction Co., of St. Louis, to
furnish eleven steel bridges for the road which is
to extend from Trinity through Cameron to
Georgetown, Texas. M. P. Kelly is manager.

Hempstead, Texas.—The Texas Western is mak-
ing surveys with the view of building a line into
Hempstead, by way of Pattison, from Sealey,
Texas, its present terminus. J. H. Gray, at
Houston, is general manager.

Hendersonville, N. C.—The work of grading the
Hendersonville & Brevard road has begun.

Henrietta, Texas.—Tracklaying has begun on
the Missouri, Kansas & Texas branch to Wichita
Falls, and the grading is nearly completed.

Interlochen, Fla.—The Interlochen street rail-
way, extending from Interlochen to Mariner's
lake, has been completed. It is operated by gas
motors.

Jasper, Ga.—The Piedmont Marble Co. is con-
sidering a plan to build a steam dummy line from
Jasper to Marble Hill for the purpose of shipping
marble from the quarries.

Lexington, Ky.—Parties in Wolf and Morgan
counties are endeavoring to raise capital to build
thirty miles of road from Walnut Grove to a con-
nection with the Lexington & Eastern at Mill
creek. The road will traverse the Caney canal
coalfields. General Manager Livingston, of the
Lexington & Eastern, and Judge Swango, of
Frankfort, are interested.

Little Rock, Ark.—It is reported that Mrs. Hetty
Green, of New York, the millionaire, may secure
the Little Rock & Memphis when it is sold on
foreclosure, and extend it to Greenville, Texas,
to connect with the Texas Midland, of which her
son, E. H. R. Green, is the president.

Mississippi City, Miss.—The Burk in Railroad Co.
has secured the right to extend its lines. It will
build six miles of horse railroad, and has ordered
material. G. W. Dunbar and E. G. Burklin are
among those interested.

Montgomery, Ala.—Bills to incorporate the Coosa
Iron & Railroad Co. and the Chicago, Florence &
Gulf Railway have passed the Alabama legisla-
ture.

Natchez, Miss.—John Williamson and the Vis-
count Grimston, it is stated, have become inter-
ested in Hon. H. R. Steele's project to build a
line from Vidalia, on the Mississippi river oppo-
site Natchez, to a connection with the Iron
Mountain system at Arkansas City, Ark. It is to
be called the Mississippi Valley Railway. James
Rawlings is secretary.

New Orleans, La.—E. H. Farrar, of the New
Orleans & Western, states that it will be built
from New Orleans to Dallas, Texas, in a direct
line. The company has \$6,000,000 capital, and is
composed principally of New York parties, it is
stated.

New Orleans, La.—The city council has granted
the New Orleans & Western Company a fran-
chise to build a road into the city and to acquire
terminals. E. B. Kruttschnitt and D. E. O'Day are
interested.

Prattville, Ala.—The branch of the Louisville &
Nashville to be built to Prattville is to be ten
miles long. Assistant Engineer Bedford, of the
Louisville & Nashville, has made surveys. His
address is Louisville, Ky.

Raleigh, N. C.—The Senate has passed the bill
incorporating the Morgantown & Shelby Railway
Co., and the House has acted favorably on the
incorporation of the Sanford, Lillington & East-
ern, Carolina & Northwestern and Atlantic, Van-
cayville & Reidsville Companies.

Red Springs, N. C.—J. L. McMillan advises the

MANUFACTURERS' RECORD that a company has
been formed to build the Red Springs & Bowmore
road, which will be extended into the turpentine
and timber sections of Richmond county; it will
join the Cape Fear & Yadkin Valley at Red
Springs.

San Antonio, Texas.—Construction work on the
San Antonio & Gulf Shore, interrupted by litigation,
has been resumed towards Velasco on the
coast; about twenty-eight miles of line are com-
pleted. President Clifford may be addressed.

Scranton, Miss.—The work of grading the Moss
Point & Pascagoula line has begun from its
present terminus to East Pascagoula.

Sherman, Texas.—It is stated that the Missouri,
Kansas & Texas will secure the necessary legis-
lation in Texas to enable it to obtain control of
the Sherman, Shreveport & Southern, which may
be extended from Jefferson, Texas, to Shreve-
port, La. The Missouri, Kansas & Texas controls
the completed line.

Stephensville, Texas.—It is stated that a Phila-
delphia syndicate will build the proposed Thur-
ber & Llano Coal & Iron Railway and take its
bond issue in payment. H. N. Smith is one of
the promoters.

Tyler, Texas.—W. S. Herndon, John T. Durst
and others are endeavoring to secure an exten-
sion of the Missouri, Kansas & Texas system
from Mineola to Tyler. The distance is twenty-
five miles.

Valdosta, Ga.—B. P. Jones, C. R. Pendleton and
J. M. Briggs are part of a committee chosen to
secure the construction of the line from Valdosta
to Fernandina, Fla. An effort will be made to
build the first thirty miles with Valdosta capital.

Wilmington, N. C.—General Manager Kenly, of
the Atlantic Coast Line, writes the MANUFAC-
TURERS' RECORD that the proposed road from
its main line to the Charleston, Sumter & North-
ern division will join the latter at Elloree, S. C.
It will be six miles in length if built.

Electric Railways.

Baltimore, Md.—The Baltimore, Middle River &
Sparrow's Point Company, of which James Young
is president, has received permission to extend its
line completed to a junction with the Baltimore
Traction Co.'s system.

Baltimore, Md.—Henry Y. Brady, O. P. Eaker
and others interested in the Baltimore, Severn
Park & Annapolis electric project have incorpo-
rated the Baltimore, Westport & Annapolis Elec-
tric Railway & Tramway Co. to build from Bush
street in Baltimore, through Westport, to a con-
nection with the Annapolis, Washington & Balti-
more Railway.

Bowling Green, Ky.—Contracts are about to be
let for constructing five miles of trolley street
railway. Address M. H. Crump, secretary Com-
mercial Club.

Charlotte, N. C.—The legislature has acted fa-
vorably on a bill incorporating the Charlotte &
Mecklenburg Railroad Co., which, it is un-
derstood, intends building an electric line in the city
and county.

Kansas City, Mo.—It is understood that arrange-
ments have been made with a New York syndi-
cate whereby \$150,000 will be spent in converting
the Independence dummy line in the suburbs
into an electric road. Walton Holmes and L. C.
Krauthoff are interested.

Macon, Ga.—The Macon Consolidated Railway
Co. has decided to extend its lines from South
Macon to Tobesofkee. T. J. Catling is general
manager.

New Orleans, La.—The franchise to build and
operate an electric line on Elysian Fields street
is about to be sold to the highest bidder. The
mayor may be addressed.

New Orleans, La.—The Hudson Street Railway
Co. has asked the city council for a franchise to
build electric lines in the city [This is the
Northern syndicate which has laid out an exten-
sive system already mentioned in the MANUFAC-
TURERS' RECORD.—ED.]

Norfolk, Va.—Chas. H. and William Barrett, Jr.,
and F. B. Treat, of Philadelphia, have purchased
the Ocean View Railroad, it is stated, and will
convert it into a standard-gauge trolley line. It is
to extend from Norfolk to Ocean View.

Parkersburg, W. Va.—A Boston syndicate is en-
deavoring to secure control of the present street
railway and convert it into an electric line.

Rockwood, Tenn.—The MANUFACTURERS' REC-
ORD is advised that the Roane Iron Co. proposes
building the electric street railway in Rockwood,
furnishing power from its plant.

Washington, D. C.—E. Saxton, of Washington,
has secured contract for building the Ninth-street
division of the Metropolitan Railway Co.'s sys-
tem. The current will be laid in an underground
conduit of iron. The rails will be 83 pound steel.

Wethersville, Md.—Dr. J. C. Monmonier and
Jos. B. Seth are among those interested in build-
ing an electric line from the western city limits
through Wethersville to Gwynn's Falls, along
the Baltimore and Powhatan turnpike. President
Brown, of the Baltimore Traction Co., is inter-
ested.

MACHINERY WANTED.

Manufacturers and others in need
of machinery of any kind are re-
quested to consult our advertising
columns, and if they cannot find just
what they wish, if they will send us
particulars as to the kind of machin-
ery needed we will make their wants
known free of cost, and in this way
secure the attention of machinery
manufacturers throughout the coun-
try. The MANUFACTURERS' REC-
ORD has received during the week
the following particulars as to ma-
chinery that is wanted.

Air Pumps.—J. B. Legg, St. Louis, Mo.,
the market for air pumps.

Boiler and Engine.—Ed Harrison, Box 9,
Athens, Texas, wants prices on boiler and engine
for saw mill.

Boiler and Engine.—The Garland Company,
Crowley, La., care W. W. Dason, wants an
eighty horse-power boiler with separate pump
for same, and a sixty horse-power engine; also a
rotary pump of 15,000 gallons capacity per minute;
lift, thirteen feet.

Boiler and Engine.—Stern & Lauer, 318 North
Front street, Baltimore, Md., want a 125 horse-
power engine and a thirty-five or forty horse-
power boiler, new or second-hand.

Boring Machine.—See "well-boring machinery."

Broom Factory.—T. M. Cox, Blountville, Tenn.,
wants estimates on cost of small broom factory.

Canning Machinery.—Walter Hurst, Bowman's
Bluff, N. C., wants information concerning outfit
for canning.

Canning Supplies.—The Belton Canning Co.,
Belton, Texas, will need cans and labels.

Canning Machinery and Supplies.—E. J. Lenker,
Benton, Ark., wants fruit cans, labels and prob-
ably processing outfit.

Carousel.—David Goings, care Altamahaw Cot-
ton Mills, Elon College, N. C., wants to corre-
spond with dealers in and manufacturers of
steam riding galleries, etc.

Chalk Lines.—J. W. Neff & Co., Buckhannon,
W. Va., want to correspond with parties who
manufacture chalk lines.

Church Furniture.—Opera chairs for church use
will be wanted. Address Rev. C. C. McCormell,
Granbury, Texas.

Church Furniture.—Seats, pulpit and altar rail-
ing will be wanted for church. Address W. K.
Rieving, chairman building committee, Camden,
Ark.

Conveying Machinery.—Wm. A. Blount, Wash-
ington, N. C., wants to buy clay-conveying ma-
chinery.

Cooper Factory.—T. M. Cox, Blountville, Tenn.,
wants estimates on cost of small cooper factory.

Cotton Gins.—R. J. Hand, 2415 West Houston
street, San Antonio, Texas, wants to buy one or
two gin stands; second hand will do.

Cotton Mill.—The Red Springs Manufacturing
Co., Red Springs, N. C., is ready to negotiate for
cotton-mill equipment; J. L. McMillan, secretary.

Cotton-mill Machinery.—Bowen, Jewell & Co.,
Jewells, Ga., want a five-volt tender, 40 inch
face.

Cotton-mill Machinery.—J. T. Brown, London,
Ky., wants a small outfit for spinning yarn from
wool rolls.

Cotton-mill Machinery.—The East Alabama Land
Agency, La Fayette, Ala., wants estimates on
cost of 500 and 10,000 spindle yarn mills. Give
complete information, etc.

Cotton-ropes Machinery.—D. W. Price, Douglas-
ville, Ga., wants rope machinery, etc.

Cottonseed Crusher.—Sherman Cox, Star
Hill, Ala., wants to buy a cheap cottonseed
crusher (horse-power).

Creamery.—Jas. J. White, Blountville, Tenn.,
wants estimates on complete building and ma-
chinery for butter and cheese factory, to use
10,000 pounds of milk per day.

Desiccating.—M. Connell, 157 North Comm-
erce street, Mobile, Ala., wants to correspond with
some party who understands desiccating or
shredding cocoanuts.

Dynamo.—The city of Hallettsville, Texas,
wants to buy a 500 light (thirty two candle-power)
Heisler electric dynamo. Address W. A. Mair,
secretary.

Electric battery Supplies.—Proposals will be
received until March 22 for 2500 four-pound sand
mold circular-shape zincs (of Star Lehigh spe-
ter); 1500 battery coppers (Bishop's compound
wire No. 14); fifty barrels bluestone, 200 cells
Leclanche (Gonda) battery, complete; 500 battery
jars; 250 telegraph poles (different sizes); 500
four-pin cross arms, complete; 100 six-pin cross-
arms, complete; fifty T arms, fifty backboards,
one-half mile Grisham wire, 100 pounds office
wire, fifteen miles No. 12 copper wire, two miles

of No. 10 K. K. copper line wire, 1000 glass insulators, 200 McIntyre sleeves for No. 12 wire, for use of the police and fire-alarm telegraph, the same to be delivered at such times and places and in such quantities as may be required. Samples to accompany proposals, and zincs to be molded under the supervision of an inspector, appointed by the board of fire commissioners. Address Alexander Preston, Baltimore, Md.

Electric-light Plant.—Proposals for equipment of electric light plant at Webb City, Mo., will be opened March 25; plans and specifications at office of C. J. McClelland, city clerk, and of Owen Ford, 710 Security Building, St. Louis; J. J. Funk, may. r

Electric-light Plant.—J. G. Schofield, Frostburg, Md., will buy equipments for electric light plant, including fifty horse power engine, 500 to 1000 light alternating dynamo, etc.

Engine.—The city of Hallettsville, Texas, wants to buy a fifty horse-power slow speed Corliss engine. Address W. A. Mair, secretary.

Farming Machinery.—R. K. Erwin, Dallas, Texas, and Jno H Belcher, Henrietta, Texas, want to correspond with manufacturers of machinery for cutting ensilage and for cutting corn in the field.

Fire Apparatus.—The town committee at Rockville, Md., recommends expending \$2000 for fire apparatus. Address the mayor.

Gold-treating Machinery.—Asa Snyder & Co., Richmond, Va., want information concerning chlorination process of gold extraction.

Grinding Machinery.—Wanted, a mill for grinding to 60 mesh a light material similar to tank-ages. Give full particulars as to capacity, etc., and state whether a sample sent will be tested. Address T. Marshall Smith, 121 West Lombard street, Baltimore, Md.

Handle and Spoke Machine.—The Sprinkle Pulley & Woodenware Co., Pennsboro, W. Va., wants dealers' prices on a second hand spoke and handle machine.

Handle and Spoke Machinery.—Law & Trammell, Brooksville, Fla., want handle and spoke machinery.

Heating Apparatus.—Heating plant will be wanted for a church building. Address W. K. Rieving, chairman of building committee, Camden, Ark.

Hoop Machinery.—Thos. Massie, Massie's Mills, Va., wants to correspond with Chicago manufacturers of hoop machines (combination pointer and dressers).

Iron Works.—See "roofing."

Knitting Machinery.—L. A. Green, Williston, S. C., wants information concerning the knitting business, cost of machinery, etc.

Ice-plant Supplies.—The Brunswick Foundry, Machine & Manufacturing Co., Brunswick, Ga., wants quotations on ammonia fittings, piping, coils, etc.

Knitting Machines.—The Hurrigan Power Co., care J. J. Alston, Tuscaloosa, Ala., wants to buy twenty-five knitting machines and complete outfit to run by water-power

Mining Machinery.—E. B. Bailey, Albion, Fla., expects to buy steam shovel and dredge for phosphate-mining.

Lathe.—Wanted, a pulley lathe. Address I. S. F. care MANUFACTURERS' RECORD, Baltimore, Md

Laundry Machinery.—Geo. S. Ogilvie Oak-woods, N. C., wants a mangle for household work (hand power).

Oil Mills.—R. J. Hand, 2415 West Houston street, San Antonio, Texas, wants to buy a 10-ton or upward cottonseed oil mill; second-hand will do.

Pipe.—W. C. Newman, Ashland, Va., wants prices on a rotary or other pump for fire use, to run from belt from horizontal shaft of water-wheel, and to fill an inch nozzle.

Planer.—Ed Harrison, Box 101, Athens, Texas, wants to buy a planer.

Planing Mill.—The Ford-Phleger Lumber Co., Dyersburg, Tenn., wants estimates on complete small planing mill new or second-hand; machinery to include 26-inch surfacer, four-side molding machine, automatic knife-grinder, band scroll saw, 16-inch-swing turning lathe, gig, rip line and other saws, fan, etc.

Pulley Lathe.—J. C. Steele & Son, Statesville, N. C., want a pulley lathe with boring attachment, second-hand.

Pumps.—See "boiler and engine."

Pumps.—See "well-boring machinery."

Railroad Material, etc.—W. B. Johnson, Palestine, Texas, wants to correspond with firms ready to contract for 100 to 300 miles of railroad complete.

Rails.—Geo. Peacock, Selma, Ala., wants two or three carloads of small second-hand rails, 12 or 15 pound, for coal mines.

Roofing, etc.—Iron-trussed roof 92x103 feet and stamped-metal ceilings and other structural iron work will be wanted for theatre. Address Jno. Andrewatha, Austin, Texas.

Saw Mill.—Ed Harrison, Box 101, Athens, Texas, wants to buy a saw mill,

Shingle Machine.—Ed Harrison, Box 101, Athens, Texas, wants to buy a shingle machine.

Spinner.—J. T. Brown, Indianapolis, Ind., wants to buy a spinner.

Sprinkler System.—J. B. Legg, St. Louis, Mo., is in the market for automatic sprinkler.

Starch Machinery.—Walter Hurst, Bowman's Bluff, N. C., wants machinery for starch manufacturing.

Steam Plant.—J. B. Legg, St. Louis, Mo., is in the market for steam plant.

Tanks.—See "well-boring machinery."

Telephop Equipment.—Equipment for town system is wanted. Address M. M. Higgins, Easton, Md.

Telephone Equipment.—The Dalton Telephone Co., Dalton, Ga., is in the market for switchboards, telephones, wires, insulators, etc., for exchange of forty or fifty subscribers; C. D. McCutchen, Jr., manager.

Telephone Equipment.—The Tennessee Woolen Mills, McMinnville, Tenn., wants fifty or 100 electric telephones, 100 drop switchboards, etc.; Geo. E. Cartwright, manager.

Telephone Equipment.—The Citizens' Co-operative Telephone Association, Shreveport, La., wants complete equipment for telephone system. Address Jno. W. Taber.

Water power.—See "knitting machinery."

Water System.—M. M. Holland, Statesboro, Ga., will need machinery for conveying water through hotel building; may use steam or wind mill power.

Water Works.—Prices are wanted on machinery for water works, including pipes, etc. Address R. F. Taylor, Morristown, Tenn.

Water Works.—Plans and specifications have been prepared for the water-works system at Weston, W. Va., consisting of boiler-iron tank on masonry or steel-lattice work foundation at elevation sufficient to furnish seventy-five feet of fall or pressure, brick one story power-house, with iron roof, to contain one twenty-five horse-power engine and boiler and steam pump. An eight-inch supply pipe, also about 15,000 feet of four and six inch distributing pipe, with gates, valves, etc., will be needed. All correspondence may be addressed to E. H. Browne.

Water-works Machinery.—Steam pump, stand-pipe, mains, hydrants, etc., will be wanted in the near future. Address city clerk, Oregon, Mo.

Well boring Machinery, etc.—E. C. Allen, 40 Babcock street, Hartford, Conn., wants machinery for boring and driving wells; also pumps, wind-mills and tanks.

Wind-mills.—See "well boring machinery."

Woodenware Machinery.—Machinery for manufacturing wooden berry baskets, butter-dishes, etc., will be wanted. Address J. G. Brinson, Savannah, Ga.

Woodworking Machinery.—The Greer Machinery Co., Knoxville, Tenn., wants a second-hand panel raiser, power feed machine preferred; 36-inch second-hand diagonal planer, sash and door clamp, seven-inch four-side molder.

Woodworking Machinery.—C. W. Baldwin, Athens, Ga., wants machinery for manufacturing bobbins.

TRADE NOTES.

A PROPERTY located in Georgia that is offered for sale in our advertising columns by J. J. Nef, 15 Cortlandt street, New York city, possesses a valuable water power of 2500 horse-power capacity. The tract contains 200 acres of land, and ample building material, granite and railroad facilities are some of its advantages. The water is said to be perfectly pure for bleaching, and the location is believed to be an ideal one for a cotton mill.

In recognition of the fruitful field in the South for modern flour mill machinery, the Richmond City Mill Works, of Richmond, Ind., has established a branch office at Nashville, Tenn. The new office will be prepared to furnish special machines and a general line of milling supplies. The concern reports a large sale of its machinery in the South, and from the advantages gained by this new branch house it looks for an increased volume of orders.

THE profits attending potato-growing is making this branch of the agricultural industry a most attractive one. Mechanical skill has stepped in and cut down the cost of production by the introduction of many practical and simple labor-saving machines. Some excellent examples of this are shown in the list of potato machinery made by the Dowden Manufacturing Co., of Prairie City, Ind. Those who are interested in potato growing should address this company for descriptions of its various machines.

THAT a bright season is looming up for business is indicated by the statements of large manufacturing concerns. From the Lodge & Davis Machine Tool Co. comes the report that its trade in tools is increasing, and that aside from regular resident agents in England, France and Germany, it now has experienced salesmen from the United States traveling in Russia, Turkey, South Amer-

ica and Mexico. The company expects to ship soon two carloads of tools to New York, from whence they will be forwarded to England, Germany, France and South America.

THE room for artistic effect and elegance in sheet metal work for interior decoration permits the display of much ingenuity and good taste. With the success already made in this direction by A. Northrop & Co., of Pittsburg, Pa., it is interesting to note that this firm is arranging to turn out some novel designs that are expected to prove quite the thing. New machinery has been added for the purpose, and we are informed that the designs include stamped panels, borders and moldings for ceilings and designs for wall finish. The permanent, ornamental and fire proof qualities, as well as the economy, of sheet metal work for this purpose is leading to its general application.

LARGE and important contracts are being closed by the Walker Manufacturing Co., of Cleveland, Ohio, with a frequency showing that the depressed state of trade is not affecting this concern. Recently the company contracted with W. W. Bierce, of Montgomery, Ala., for the building of four 2000-ton Taylor steam and hydraulic compresses for immediate shipment. The company also has in hand orders for its street-railway generators of all sizes ranging from 100 to 1000 horse-power, also for its popular spring-mounted steel railway motor of twenty-five, thirty and fifty horse power. Although these street railway motors and generators have been on the market but about one year, they are giving such satisfaction as to meet with universal favor.

AN especial welcome awaits a cotton mill at Corsicana, Texas. There is no apparent reason why a cotton mill should not be established and operated to advantage in this prosperous city. Corsicana receives a large amount of cotton, 40,000 bales coming in by wagon alone. It has cheap fuel, abundant labor and good transportation facilities. There are two cotton compresses and cottonseed-oil mills in the city, besides other industries. Three national banks gas and water works, churches, schools, paved streets and low taxation are among the advantages and facilities of the place. The Commercial Club of that city will furnish any information that may be desired relative to the location of a cotton mill or any other industry.

THERE are five manufacturing enterprises that the citizens of Lake City, Fla., propose to see established there if liberal inducements and especial advantages can secure them. These factories are: A soap factory to utilize the oil from cottonseed and resin; a factory to make tubs, pails, buckets, etc., and work up a portion of the city's abundant supply of cypress, white oak, hickory, sweet gum, red and white bay, yellow and curly pine, etc.; a cigar factory to manufacture the famous "Florida Cuba" tobacco now being grown in large quantities by the planters near the city; a furniture factory, and a sash, door and blind factory. M. M. Scarborough, secretary of the Board of Trade, Lake City, Fla., will furnish any information desired.

AS an example of what can be done by a Southern establishment managed in an intelligent and progressive manner, the Petersburg Iron Works, of Petersburg, Va., is noteworthy. A year ago a stock company was formed and took hold of these works. With H. L. Morrison as superintendent, and J. N. Huston as secretary, the establishment started up right in the midst of bad times. An engine was designed and built that proved to possess many superior points, and quite a demand followed. Mr. Huston, who is an experienced civil and mechanical engineer, invented a patent furnace grate bar for utilizing such material as green sawdust, wet tanbark, bagasse, slack coal, etc., for fuel. This device is meeting with much success. The logging locomotives and other machinery made by the works are receiving wide sale. A government contract for buoys and anchors for New York harbor and bay is among the orders now being turned out. The company is now increasing its facilities to keep up with the demand for its products.

A CHARLESTON (S. C.) institution that has been steadily pushing to the front is the Exchange Banking & Trust Co. Managed by conservative but progressive business men, it has established a high reputation in financial circles, and as a result, its influence and patronage have been constantly widening. The company has just completed a handsome office building, of which it will occupy a portion. This structure is a worthy addition to the city's architecture, and in elegance of design and modern appointments equals similar structures in greater cities. The building is three stories, 30x200 feet. South Carolina, Georgia and Tennessee are represented in the material used in the building. It has a front of Tennessee buffstone and South Carolina granite. Georgia marble heightens the interior effect. A large fire and burglar-proof vault is placed in the company's office. The interior finish throughout is cypress and Southern pine in their natural colors. An Otis electric elevator, hot-water heating apparatus and other facilities are supplied.

TABLE OF CONTENTS.

EDITORIAL	Page.
Cotton Mills.....	97
New England Studying the South.....	97
A Wise Move Towards Diversified Agriculture.....	97
Will the South Export Iron?.....	97
A Chance for Investors.....	97
Don't Be Provincial.....	98
Cottonseed as Food.....	98
Can the South Do It?.....	98
Live Business Bodies.....	98
Possibility of Exporting Alabama Iron.....	98
The Texas Gran tes.....	98
Our South American Letter.....	98
The Laws of Trade.....	99
Sulphuric-Acid Making from Gold Ores.....	99
Meat Packing in Warm Weather.....	99
The \$5 Iron Question.....	100
Improved Cotton-Baling.....	100
RAILROAD NEWS:	
New North and South Line.....	100
Progress of a New Company.....	100
Contracts for a Texas Road.....	100
Southern Railroad Notes.....	100
The Monazite Industry.....	101
Another Industry for the South.....	101
Location for Steam Laundry.....	101
COTTONSEED OIL:	
Cattle and Cottonseed Meal.....	101
Feasibility of the Crusher Refining the Crude Product.....	101
The Markets for Cottonseed Products.....	101
How to Attract Attention.....	101
LUMBER:	
Lumber Market Reviews:	
Baltimore.....	102
Norfolk.....	102
Charleston.....	102
Mobile.....	102
Beaumont.....	102
Orange.....	102
St. Louis.....	102
Southern Lumber Notes.....	102
Good Roads and Cotton Mills.....	103
PHOSPHATES:	
Sales of Phosphate Land.....	103
French Buying Phosphate Land.....	103
Phosphate Markets.....	103
Phosphate and Fertilizer Notes.....	103
MECHANICAL:	
A New Injector (Illus.).....	104
A Model House-Boat (Illus.).....	104
No. 78 Deep-Throat Power Press (Illus.).....	104
The "Little Giant" Demagnetizer (Illus.).....	105
The Noworthy Telephone (Illus.).....	105
Information About Belting.....	105
Iron Markets.....	105
TEXTILES:	
Knitting Mill at Athens.....	106
A 20,000 Spindle Mill.....	106
An 11,000 Spindle Addition.....	106
A Profitable Industry.....	106
Textile Notes.....	106
FINANCIAL NEWS:	
New Financial Institutions.....	106
New Bond and Stock Issues.....	106
Interest and Dividends.....	106
Financial Notes.....	106
Philadelphia Money in Virginia.....	106
Trade Notes.....	106, 110
CONSTRUCTION DEPARTMENT:	
New Enterprises.....	107
Building Notes.....	108
Railroad Construction.....	109
Machinery Wanted.....	109
An Attractive Southern Property.	
The advertiser has for sale one of the most attractive properties in the South. It comprises 1300 acres, 450 being in cultivation and 700 in virgin pine forest. It has exceptionally good railroad facilities. The land will produce large crops of corn, cotton, tobacco and all ordinary crops, and is particularly well-suited to trucking and fruit-growing. In the centre of the property there is a beautiful clear lake covering 150 acres, which abounds in fish and is a favorite haunt of ducks and other waterfowl. It is admirably adapted to boating, bathing, etc. The land surrounding the lake is entirely free from swamp and marsh, and affords beautiful sites for residences. The forest and fields abound in all kinds of game. As a hunting preserve this place cannot be surpassed. It could be made one of the most delightful homes in the South. For a fine resort hotel no better place can be found in America. The locality is pre-eminently healthy. Price \$10,000. For particulars address B. S. C., care MANUFACTURERS' RECORD. †	

J. WM. MIDDENDORF. Members Baltimore Stock Exchange. WM. B. OLIVER.

MIDDENDORF, OLIVER & CO.
BANKERS AND BROKERS,
 No. 213 E. German Street, [KEYSER BUILDING.] Baltimore, Md.
 Stocks and Bonds Bought and Sold on Commission. Special attention given to Municipal and other investment loans. Dealers in Foreign Exchange. Drafts on Europe and Letters of Credit furnished.

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 66 Broadway, - - New York.

Investment Securities,
 Industrial Properties,
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Correspondence with Individuals, Corporations and municipalities solicited.

JOHN L. WILLIAMS & SONS, BANKERS,
 Dealers in RICHMOND, VA.
 Southern Investment Securities,
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 Correspondence invited.

Maryland Trust Co.
 Corner South and German Sts.
BALTIMORE.
 CAPITAL, - \$1,000,000.

A LEGAL DEPOSITORY FOR COURT AND TRUST FUNDS.

Acts as Financial Agent for States, Cities, Towns, Railroads and other Corporations. Transacts a general trust business. Lends money on approved security. Allows interest on special deposits. Acts as Trustee under Mortgages, Assignments and Deeds of Trust; as Agent for the Transfer or Registration of Stocks and Bonds, and for the payment of coupons, interest and dividends.

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 J. BERNARD SCOTT, Secretary and Treasurer.

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Accepted by the United States Government as sole surety on Bonds of every description
BECOMES SURETY ON BONDS of officers and employees of Banks, Railroad, Express and Telegraph Companies, Officials of States, Cities and Counties.
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 EDWIN WARFIELD, President.
 HERMAN E. BOSLER, Secy. and Treas.

PROPOSALS.

OFFICE OF CITY CLERK.
 MERIDIAN, MISS., February 8, 1895.
BIDS FOR STREET LIGHTING.
 Sealed proposals will be received by the undersigned up to 12 o'clock (noon) Thursday, March 21st, 1895, for lighting the streets of the city of Meridian with 75 1200 candle-power electric arc lights for a term ending June 1st, 1900, and with 25 additional lights after January 1st, 1897. Specifications can be seen at the office of the undersigned and will be furnished to any address on application. A certified check of \$2500 or bond with local security for \$5000 must accompany each bid. The city reserves the right to reject any and all bids.

L. A. MOOSER, City Clerk.

UNITED STATES ENGINEER OFFICE.
 NEWPORT, R. I., February 9, 1895.
 Sealed proposals, in triplicate, for dredging in Providence River, and in Pawcatuck River, R. I., in Hyannis, Edgartown, and New Bedford Harbors, and Canals of Channel, Mass., and for Removing Ledge Rock in Pawtucket River, R. I., will be received here until 12 o'clock, noon, March 20, 1895, and then opened. Full information furnished on application. W. H. BIXBY, Capt., Corps of Engineers, U. S. A.

TREASURY DEPARTMENT, Office Supervising Architect, Washington, D. C., March 1, 1895.—Sealed proposals will be received at this office until 2 o'clock P. M. on the 27th day of March, 1895, and opened immediately thereafter, for all the labor and materials required for the approaches to the U. S. Postoffice building at Lowell, Mass., in accordance with the drawing and specification, copies of which may be had at this office or the office of the Superintendent at Lowell, Mass. Each bid must be accompanied by a certified check for a sum not less than 2 per cent. of the amount of the proposal. The right is reserved to reject any or all bids and to waive any defect or informality in any bid, should it be deemed in the interest of the Government to do so. All proposals received after the time stated will be returned to the bidders. Proposals must be enclosed in envelopes, sealed and marked, "Proposal for the Approaches to the U. S. Postoffice Building at Lowell, Mass.," and addressed to CHARLES E. KEMPER, Acting Supervising Architect.

TREASURY DEPARTMENT, Office Supervising Architect, Washington, D. C., February 28, 1895.—Sealed proposals will be received at this office until 2 o'clock P. M. on the 28th day of March, 1895, and opened immediately thereafter, for all the labor and materials required for the interior finish, plumbing, etc., of the basement and first story and for the approaches of the U. S. Postoffice building at Aurora, Illinois, in accordance with the drawings and specification, copies of which may be had at this office or the office of the Superintendent at Aurora, Illinois. Each bid must be accompanied by a certified check for a sum not less than 2 per cent. of the amount of the proposal. The right is reserved to reject any or all bids and to waive any defect or informality in any bid, should it be deemed in the interest of the Government to do so. All proposals received after the time stated for opening will be returned to the bidders. Proposals must be enclosed in envelopes, sealed and marked, "Proposal for the Interior Finish, Plumbing, etc., of the U. S. Postoffice Building, Aurora, Illinois," and addressed to CHARLES E. KEMPER, Acting Supervising Architect.

TREASURY DEPARTMENT, Office Supervising Architect, Washington, D. C., February 28th, 1895.—Sealed proposals will be received at this office until 2 o'clock P. M. on the 29th day of March, 1895, and opened immediately thereafter, for all the labor and materials required to furnish and erect complete two new hydraulic passenger elevators and modernize the two hydraulic passenger elevators now in the U. S. Courthouse and Postoffice at New York, N. Y., in accordance with drawings and specification, copies of which may be had at this office or at the office of the Superintendent of Repairs at New York, N. Y. Each bid must be accompanied by a certified check for a sum not less than 2 per cent. of the amount of the proposal. The right is reserved to reject any or all bids and to waive any defect or informality in any bid should it be deemed in the interest of the Government to do so. All bids received after the time stated will be returned to the bidders. Proposals must be enclosed in envelopes, sealed and marked, "Proposal for New Passenger Elevators, etc., in the U. S. Courthouse and Postoffice at New York, N. Y.," and addressed to CHARLES E. KEMPER, Acting Supervising Architect.

Proposals for Water Works.
 Sealed proposals will be received by the Board of Water and Electric Light Commissioners of the city of Cuthbert, Ga., until Tuesday, the 19th day of March, 1895, at 8 o'clock P. M., for the construction of a complete system of waterworks, plans and specifications for which may be seen at the office of the mayor of Cuthbert, Ga., or at the office of Mable & Sullivan, engineers, rooms 605 and 606 Gould Building, Atlanta, Ga., or will be mailed to any address on application. Proposals shall include the construction of Reservoir, Buildings, Stand Pipe, Pipe Laying, Machinery, Boiler and all appurtenances thereto. The right to reject any and all bids is reserved. A certified check made payable to Robert L. Moye, Mayor of Cuthbert, Ga., in the sum of four (4) per cent. of the contractor's bid must accompany each proposal. These checks will be returned to their respective owners promptly upon the signing of the contract by the successful bidder. ROBERT L. MOYE, Mayor, Chairman Board of Water and Electric Light Commission.
 Cuthbert, Ga., February 14, 1895.

Georgia Immigration & Investment Bureau,

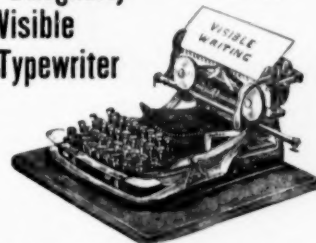
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